

Fig. 1

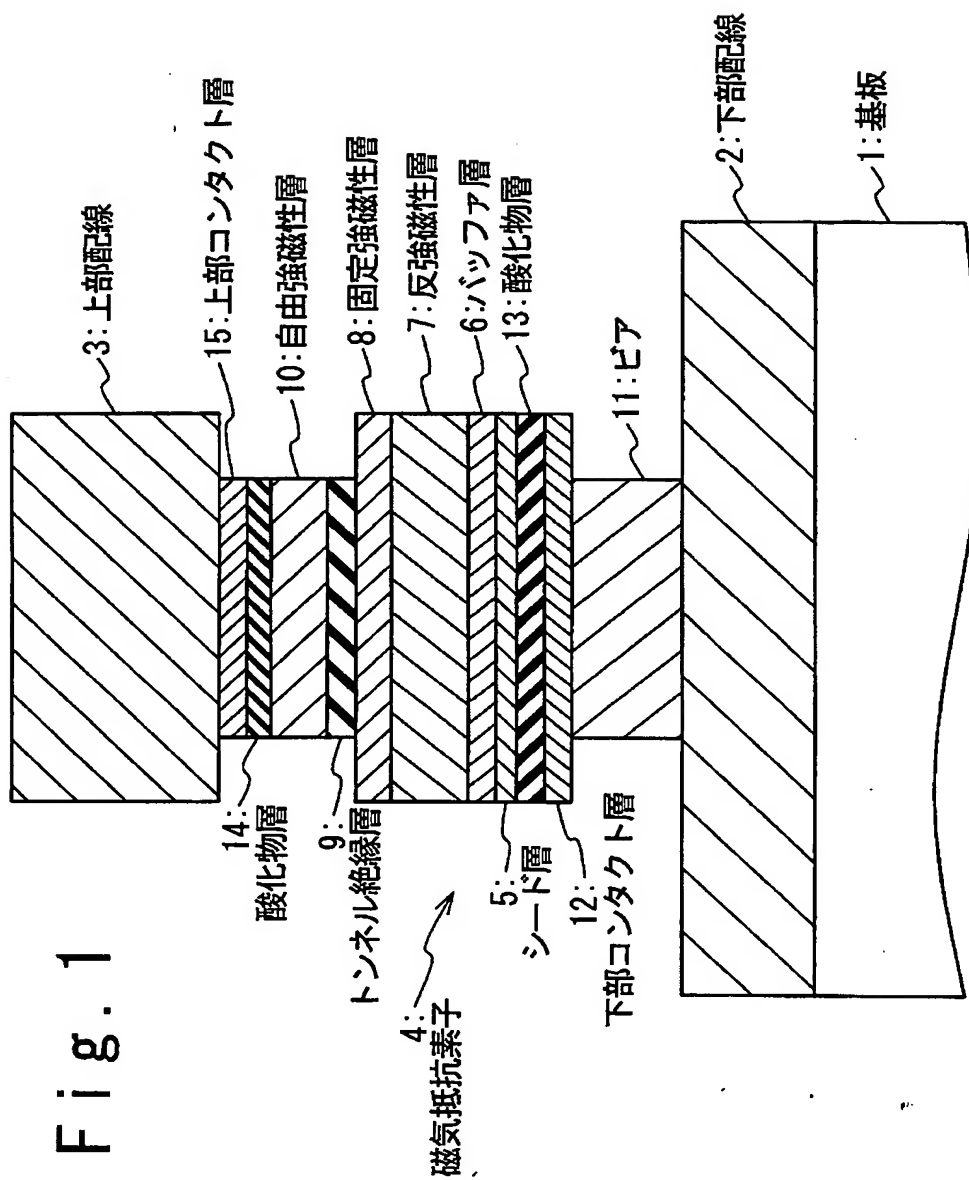


Fig. 2

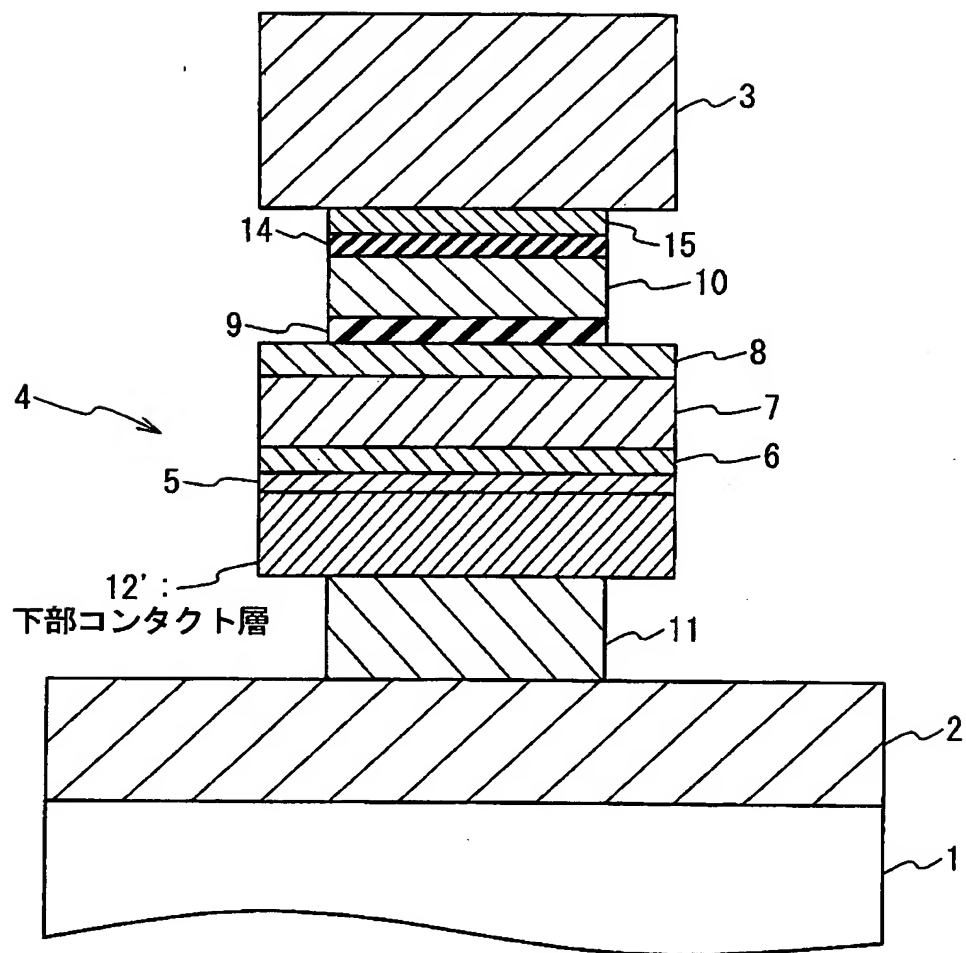


Fig. 3

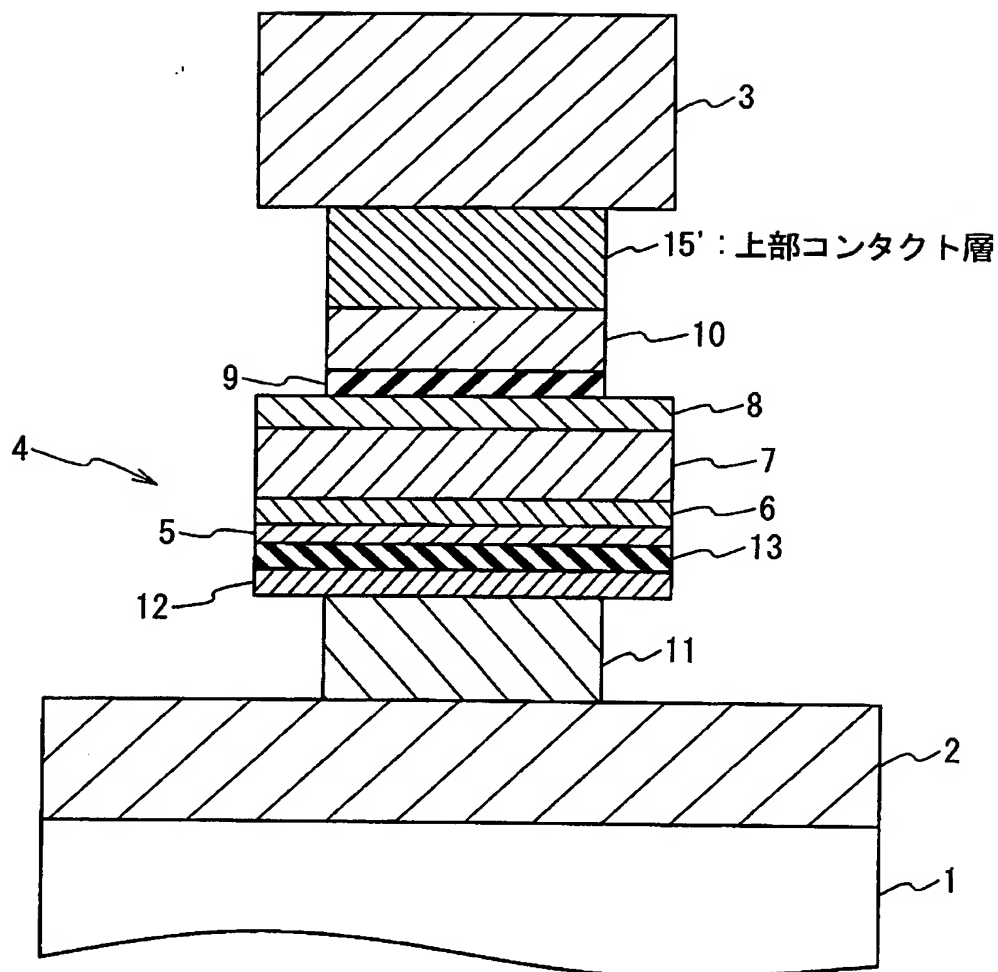


Fig. 4

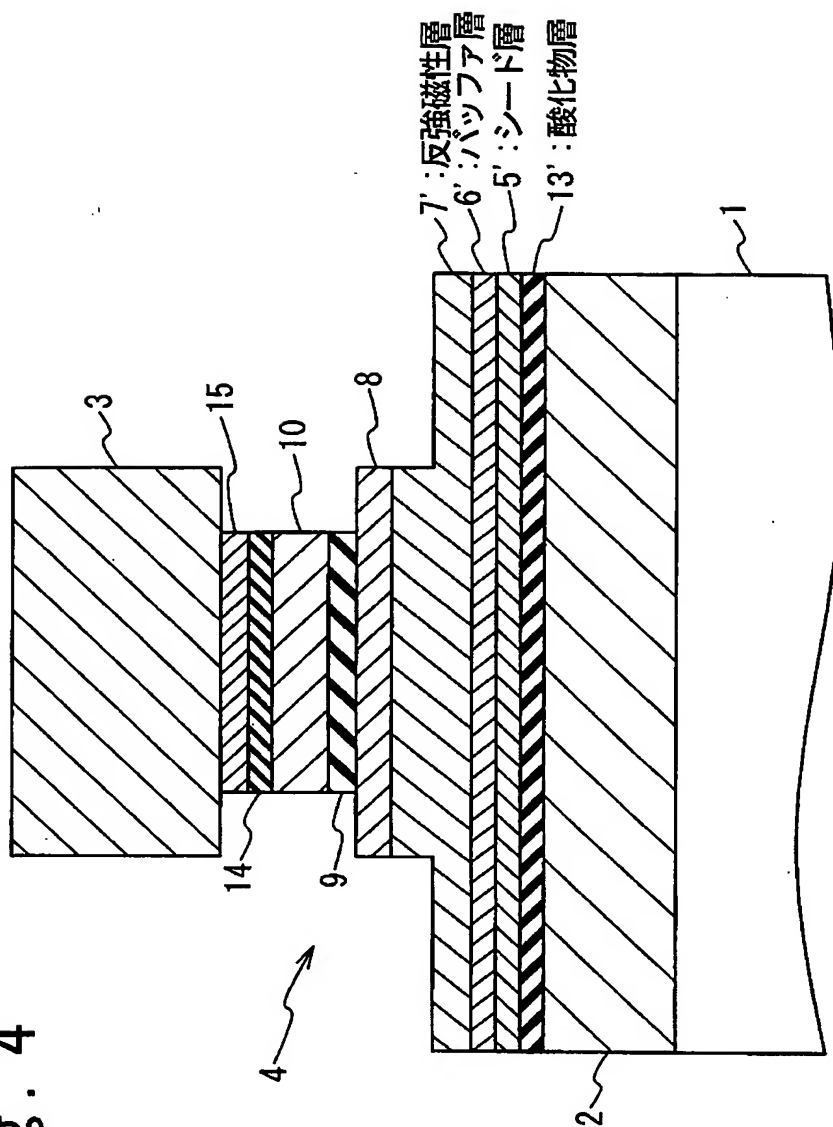


Fig. 5

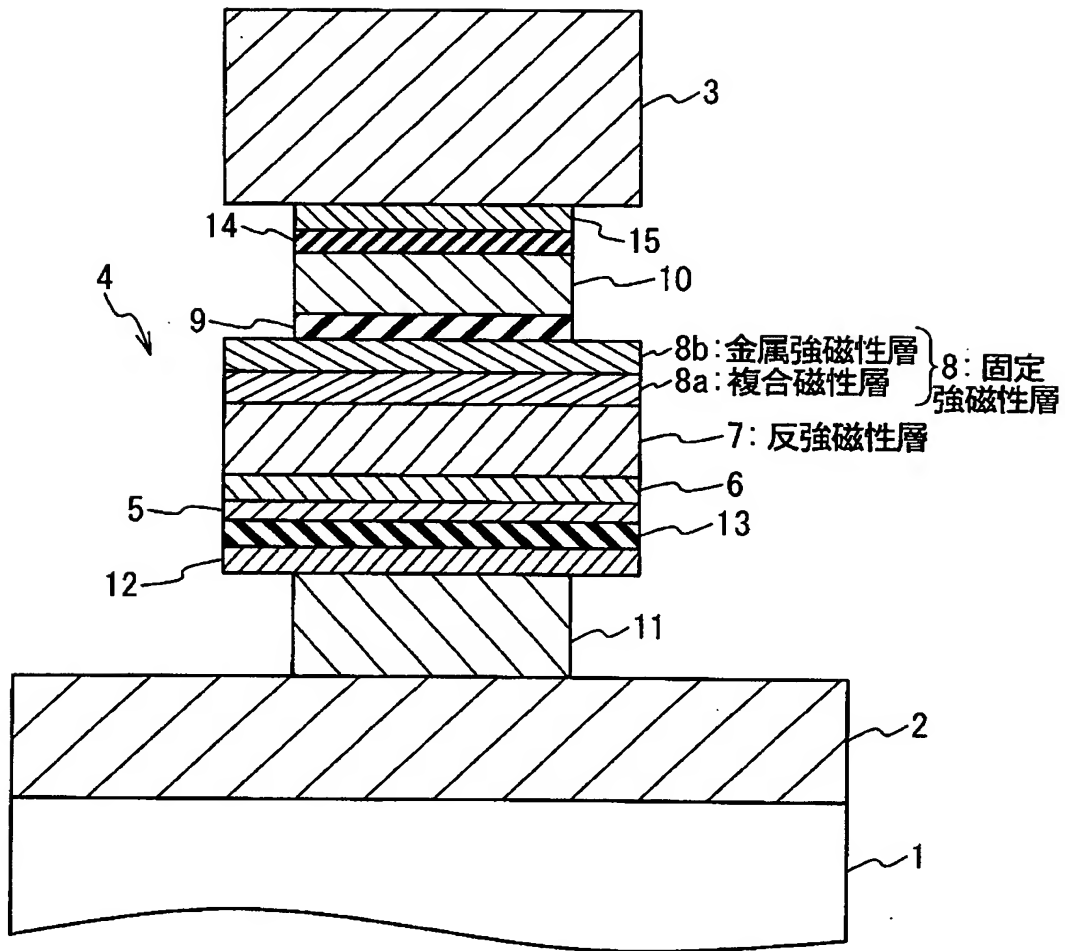


Fig. 6A

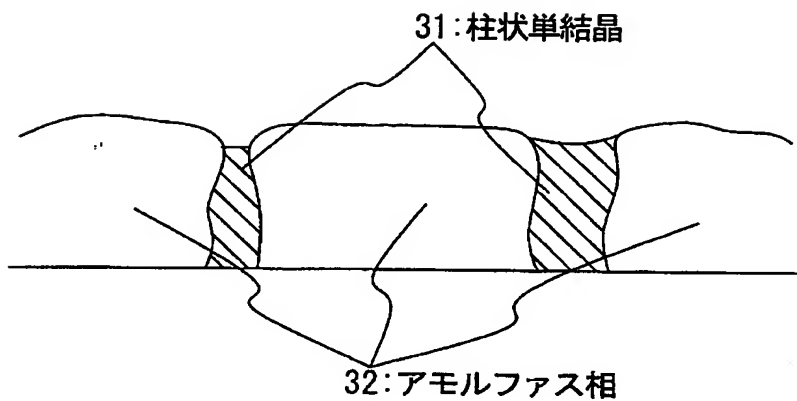


Fig. 6B

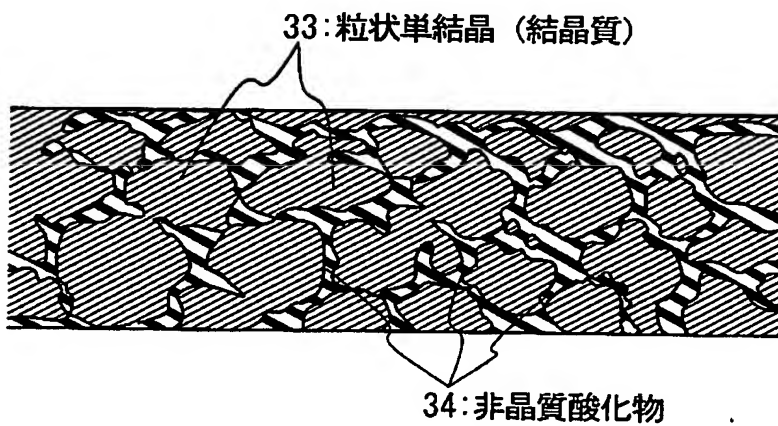


Fig. 7

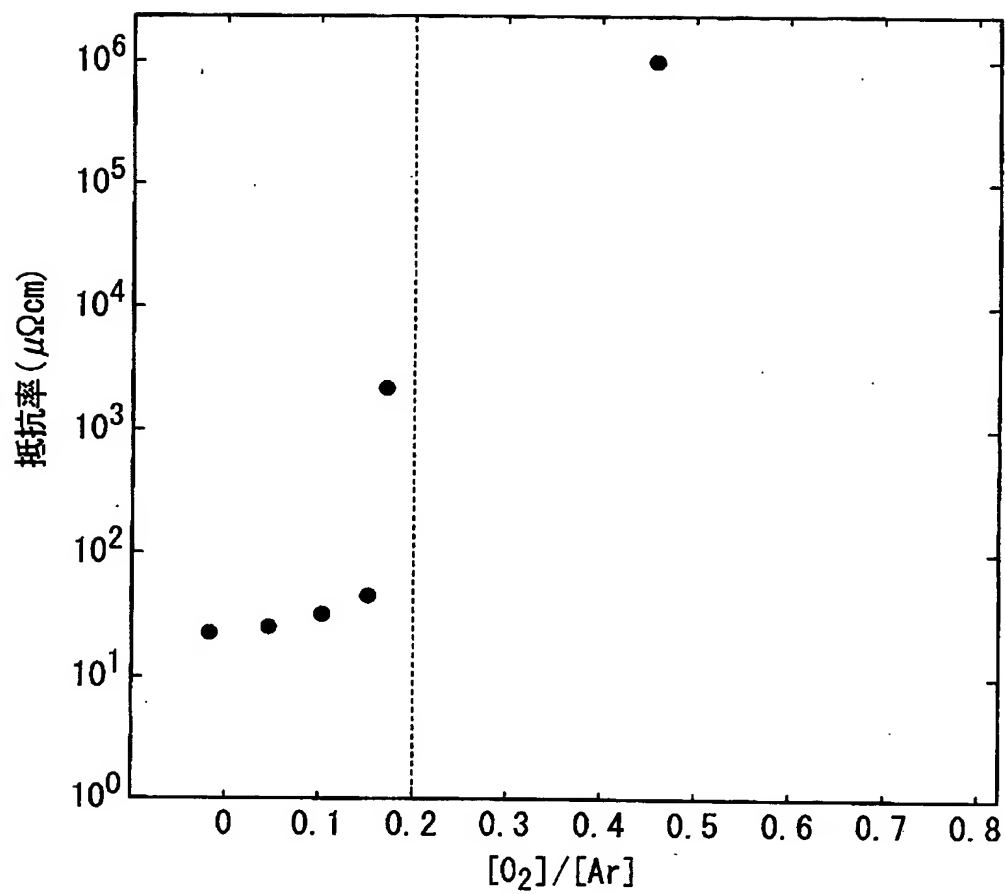


Fig. 8

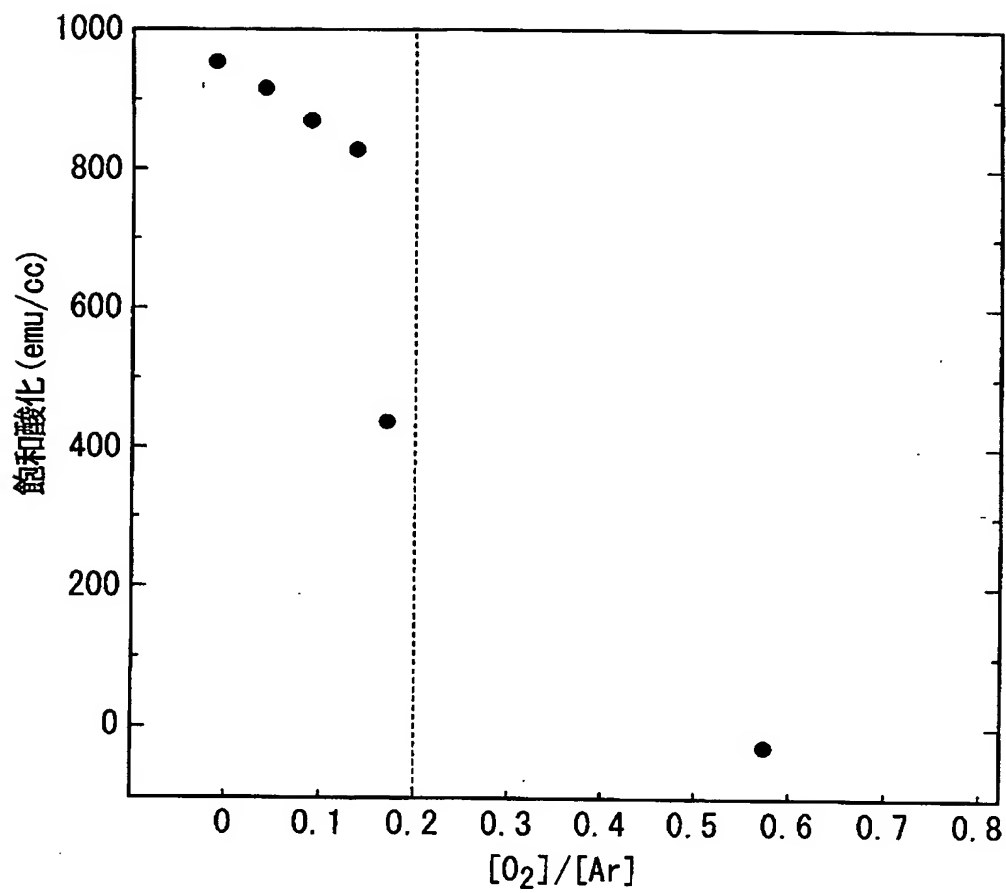


Fig. 9

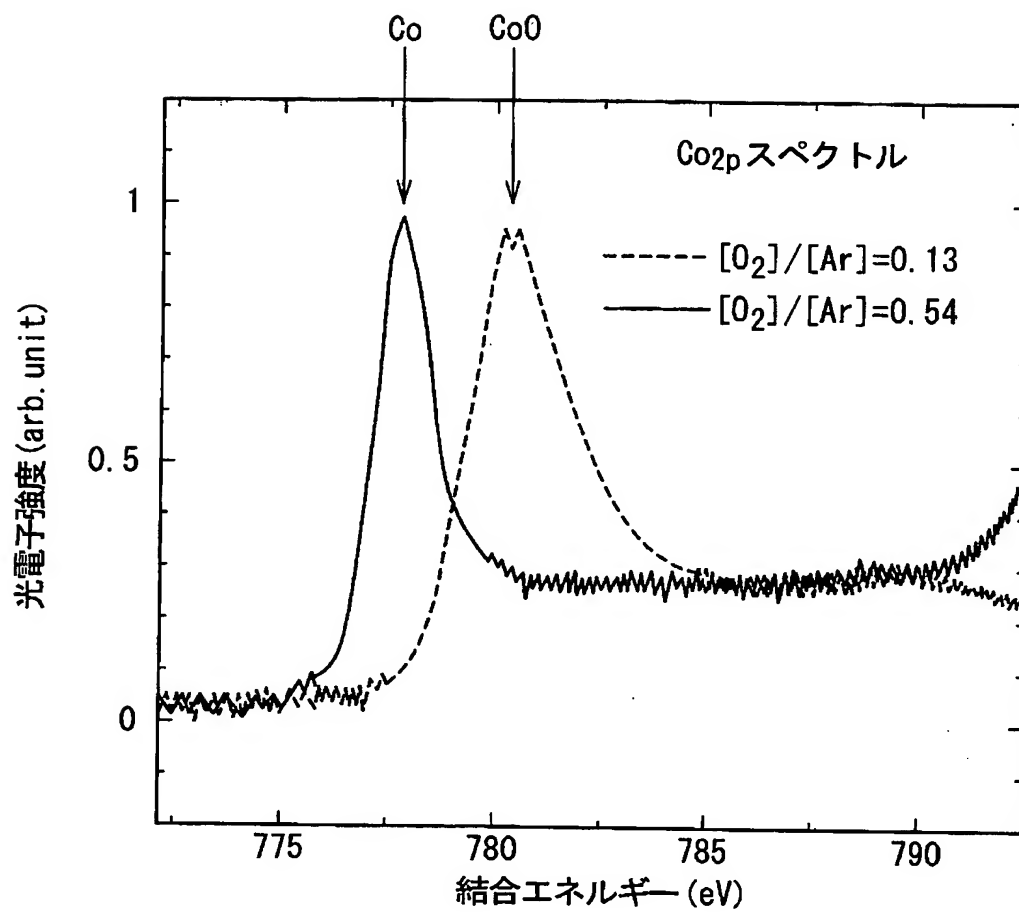


Fig. 10

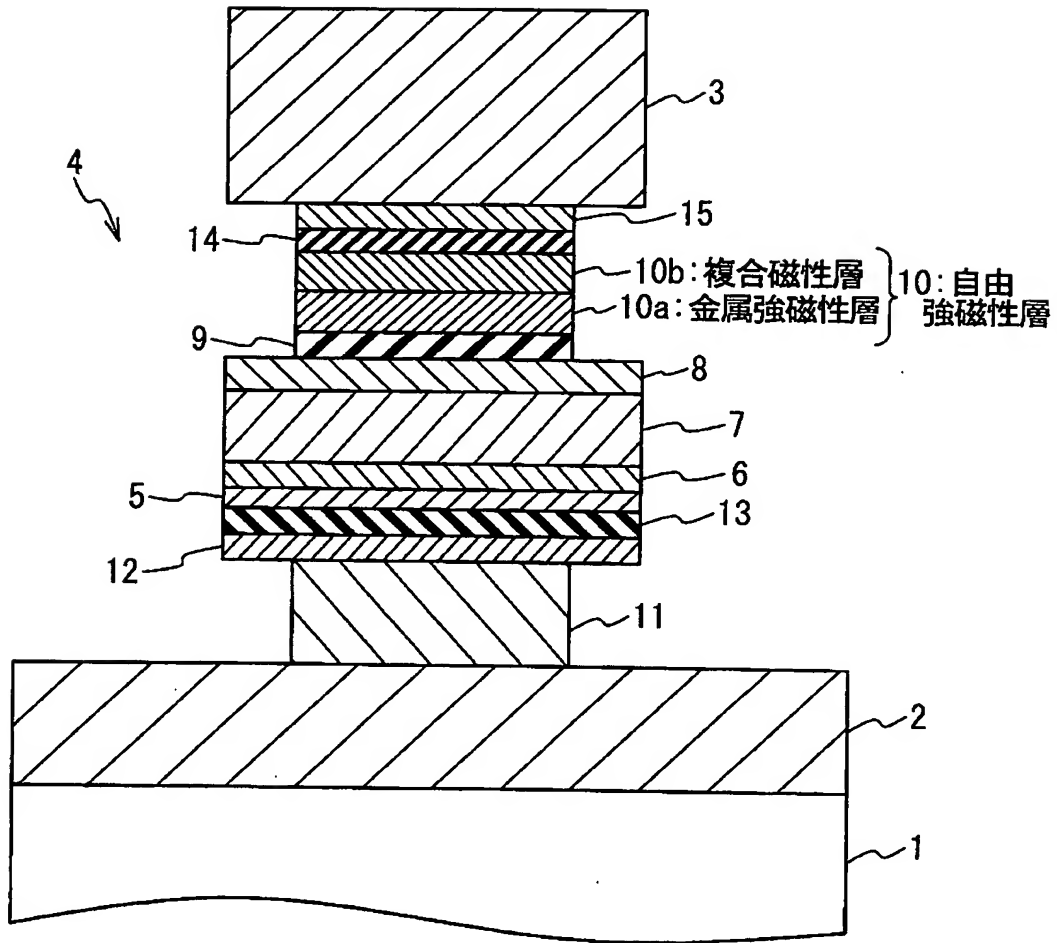


Fig. 11

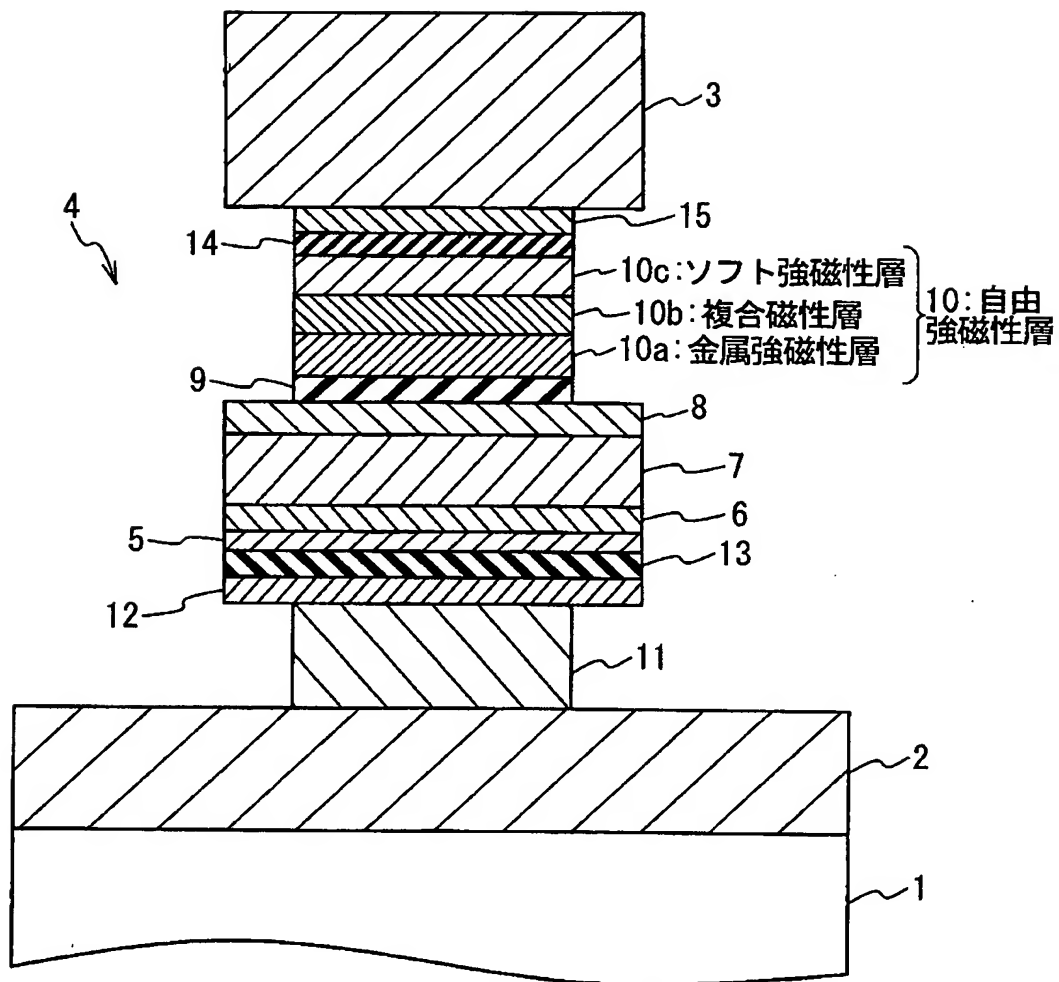


Fig. 12

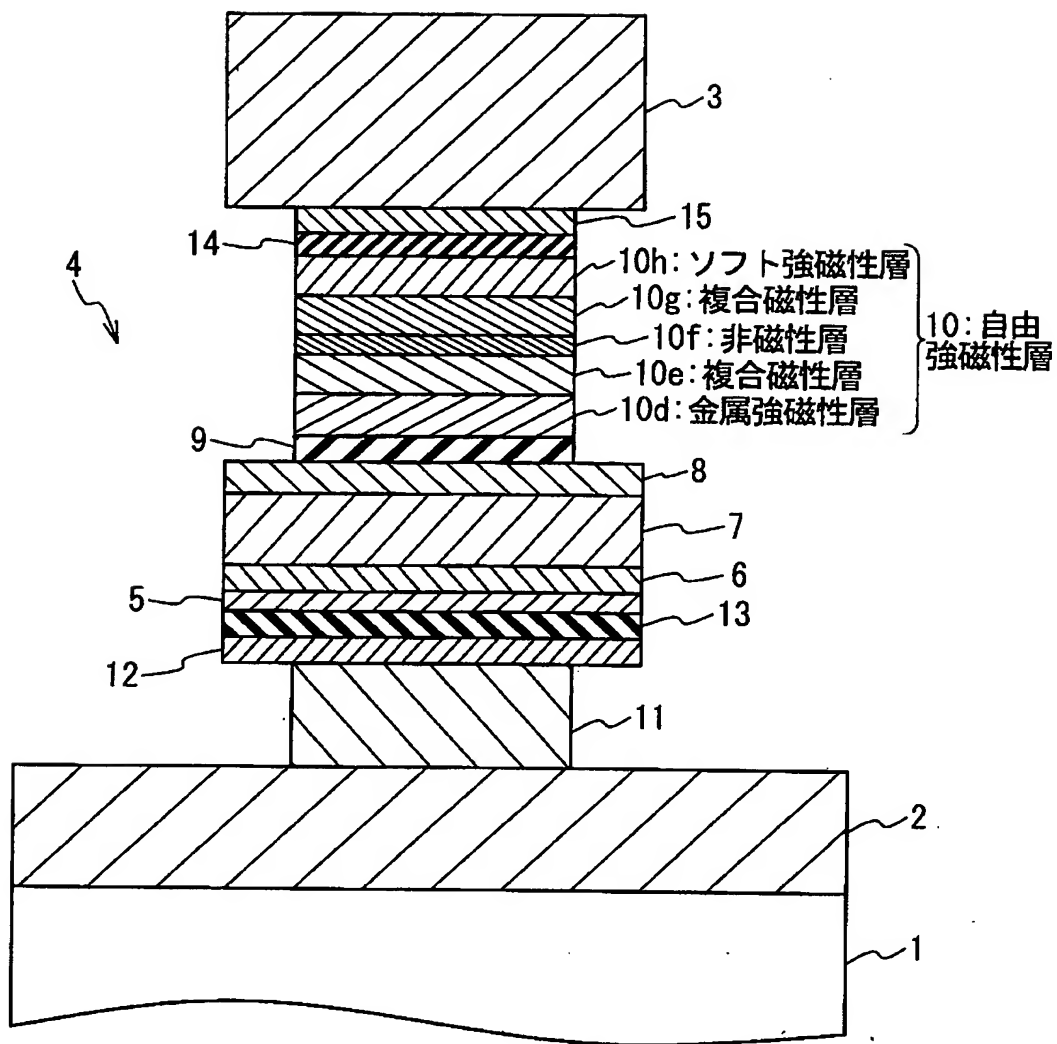


Fig. 13

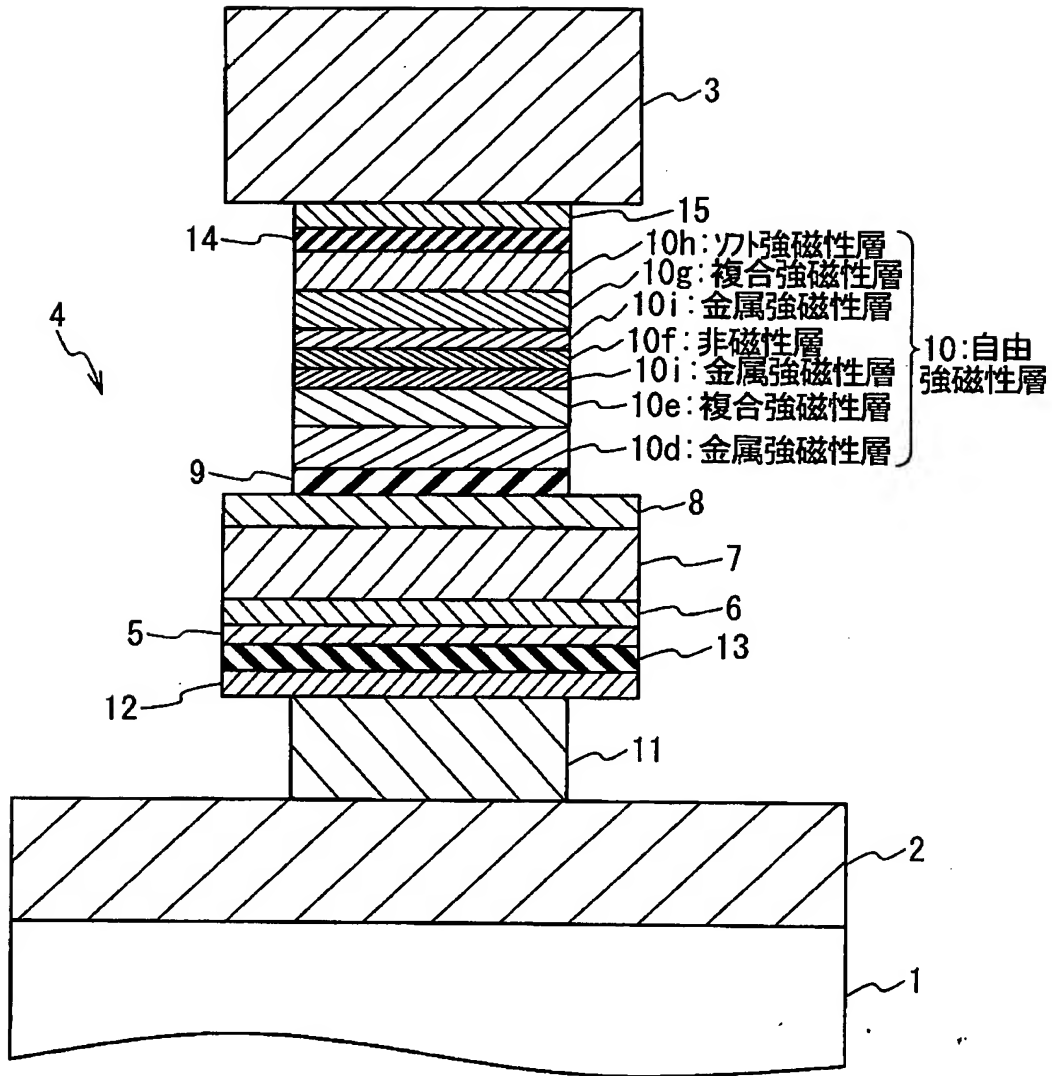


Fig. 14

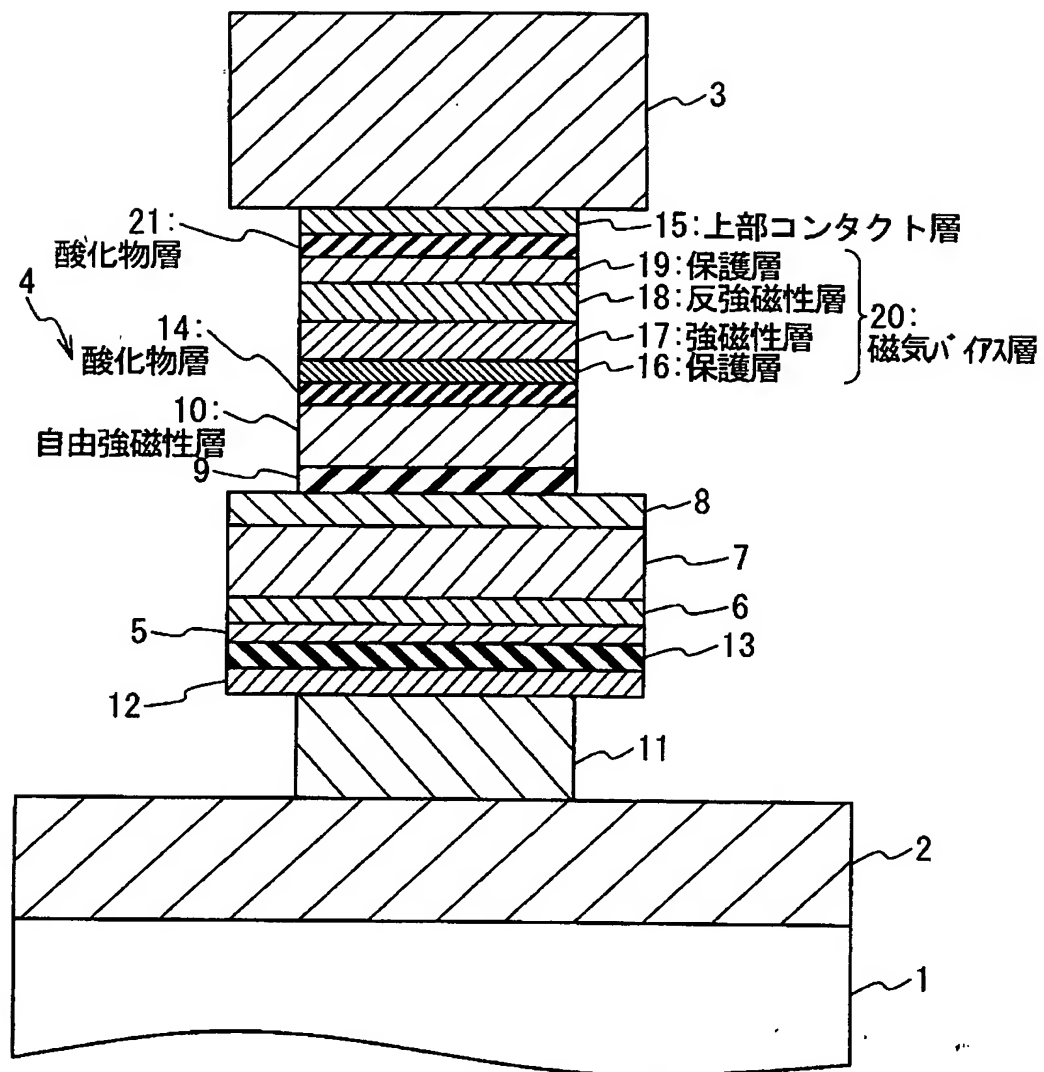
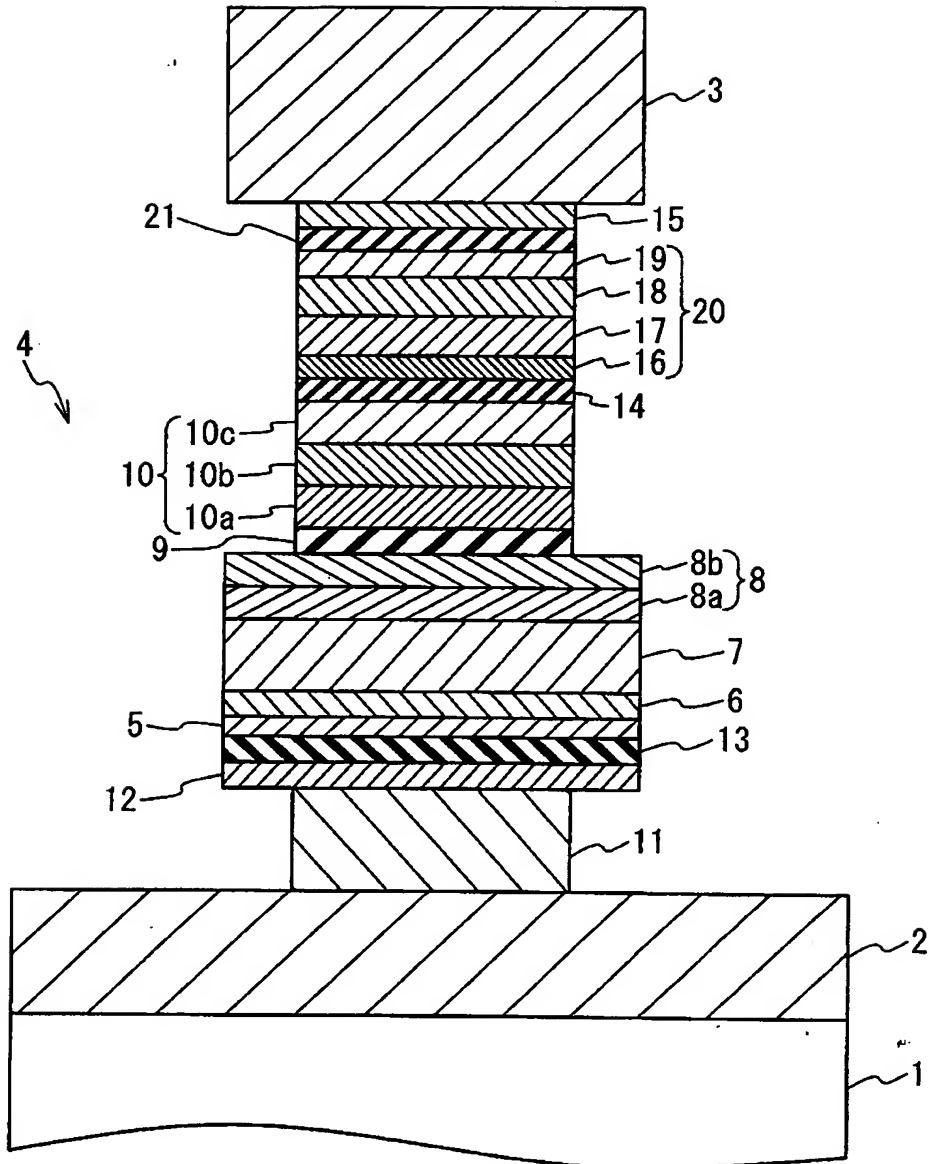
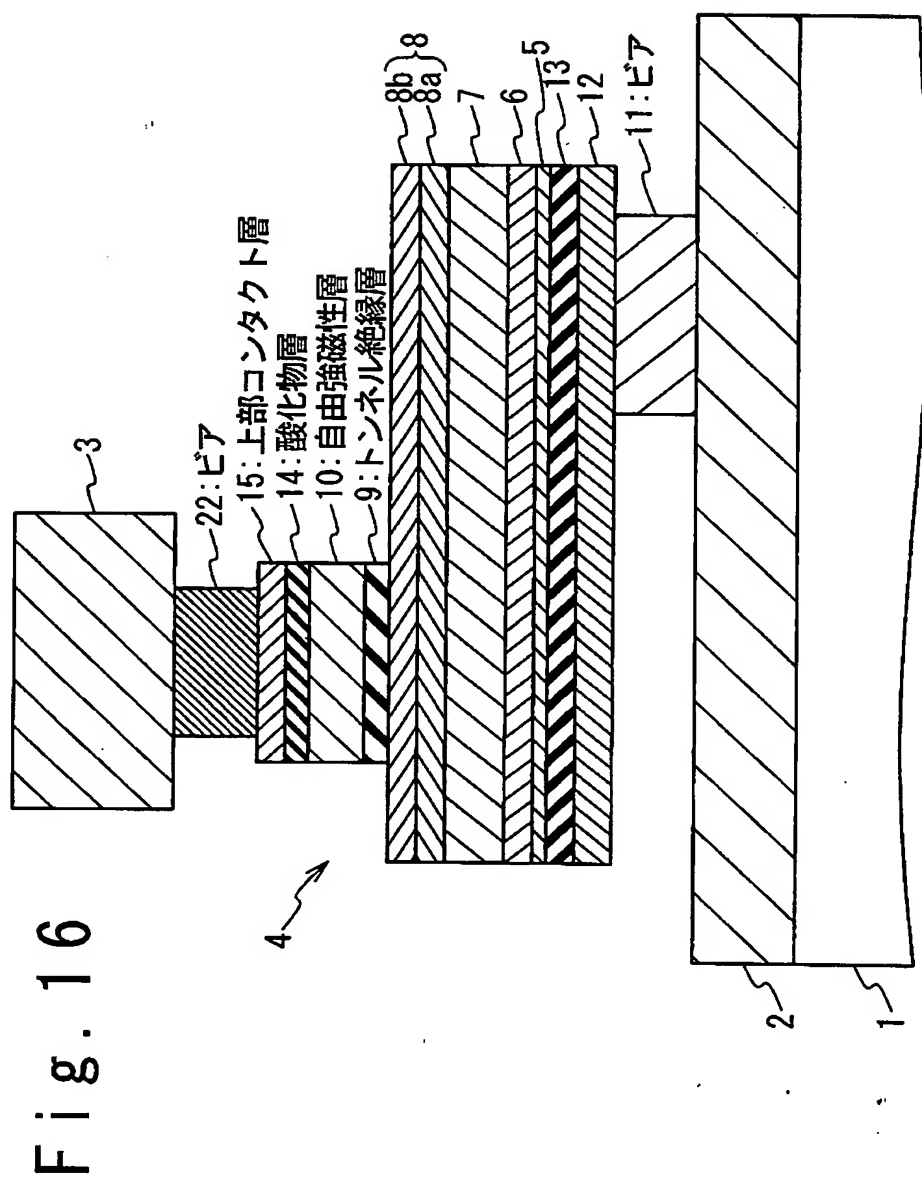


Fig. 15





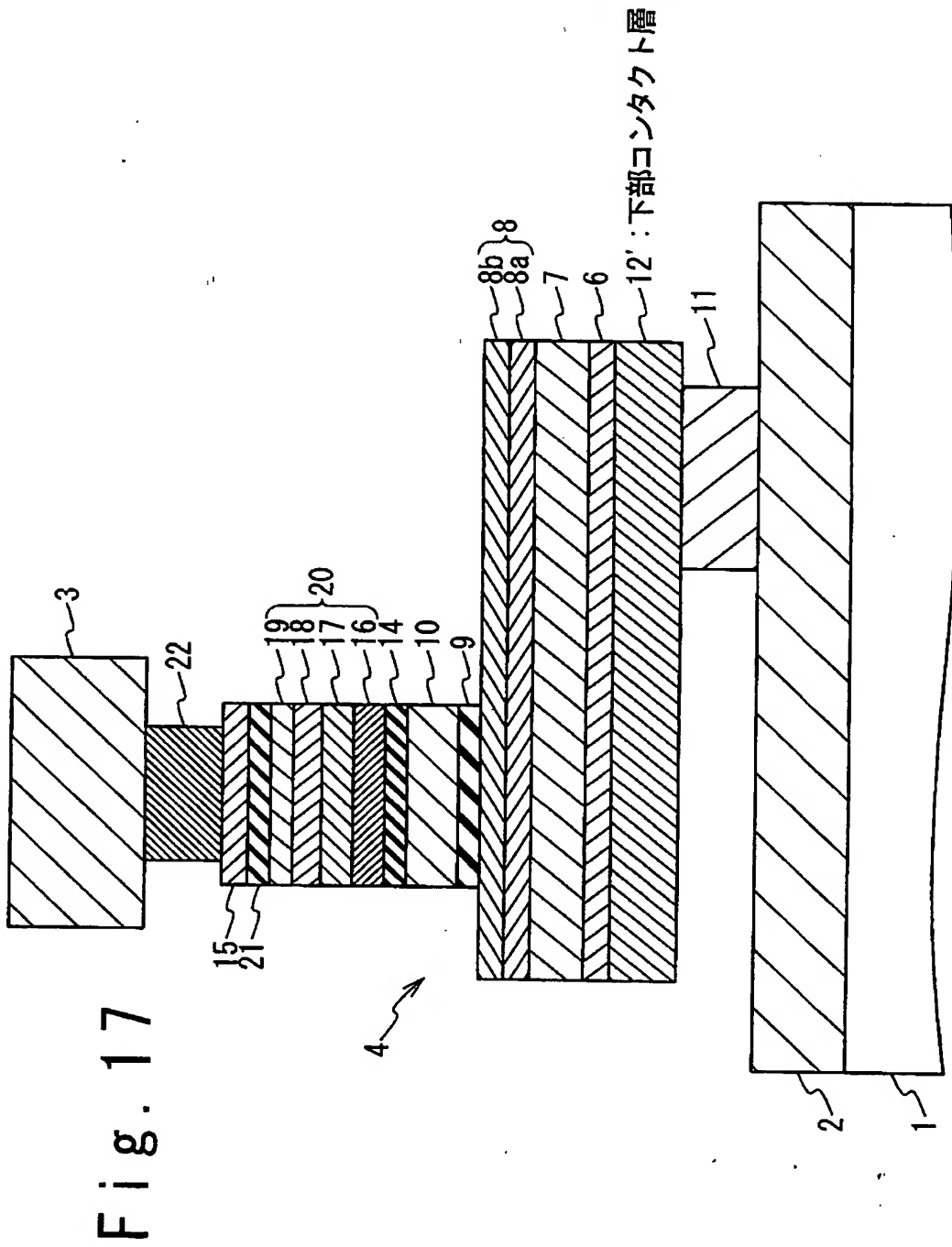


Fig. 18

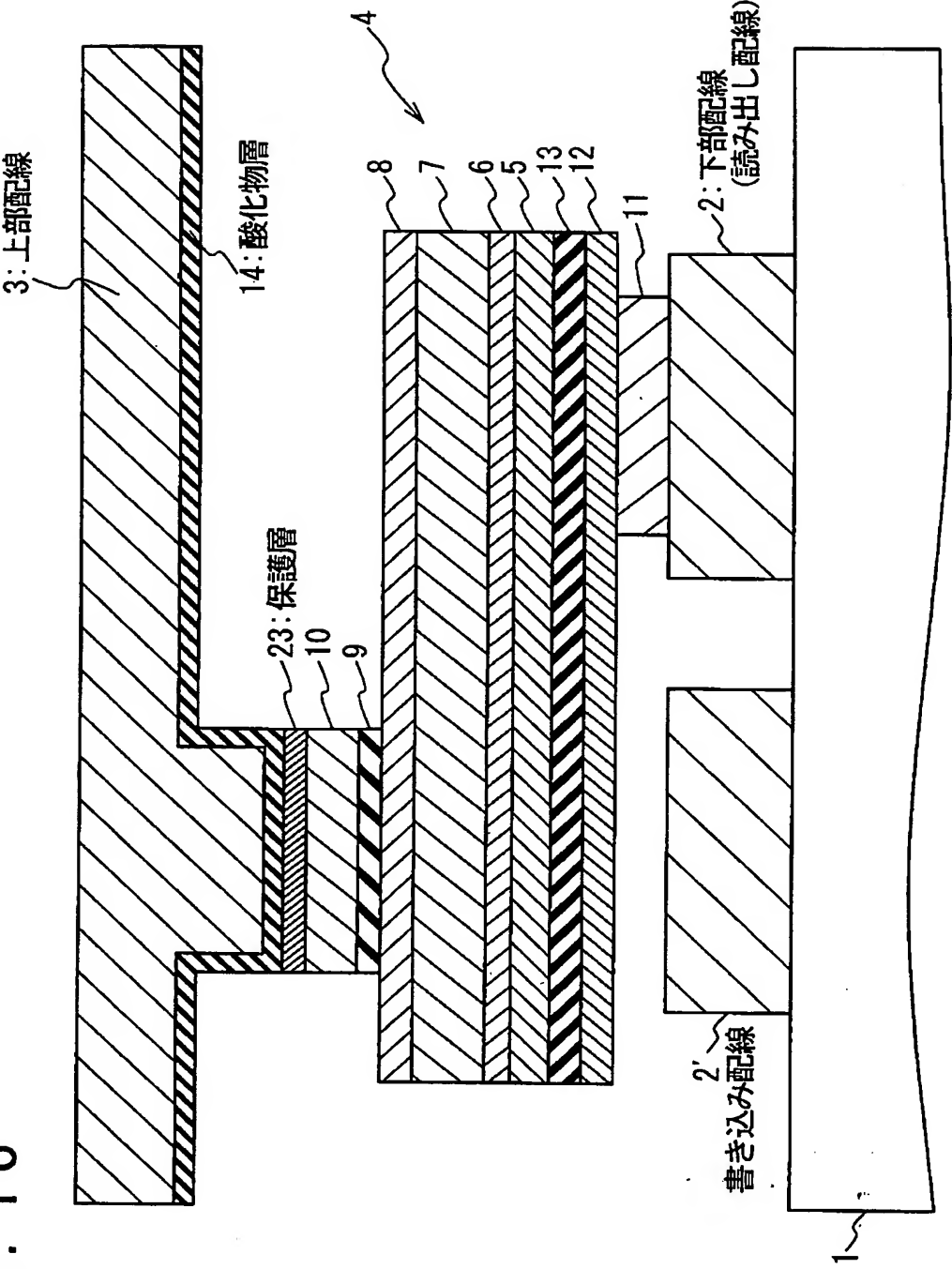


Fig. 19

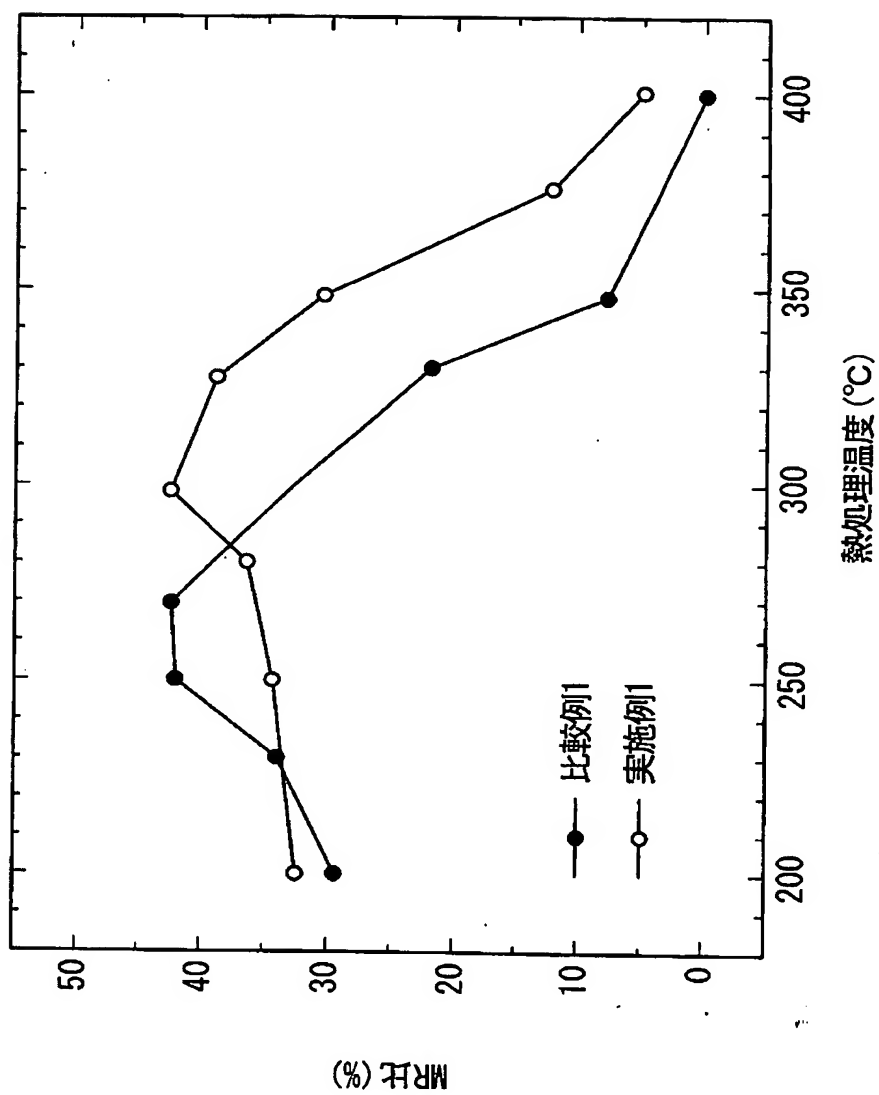
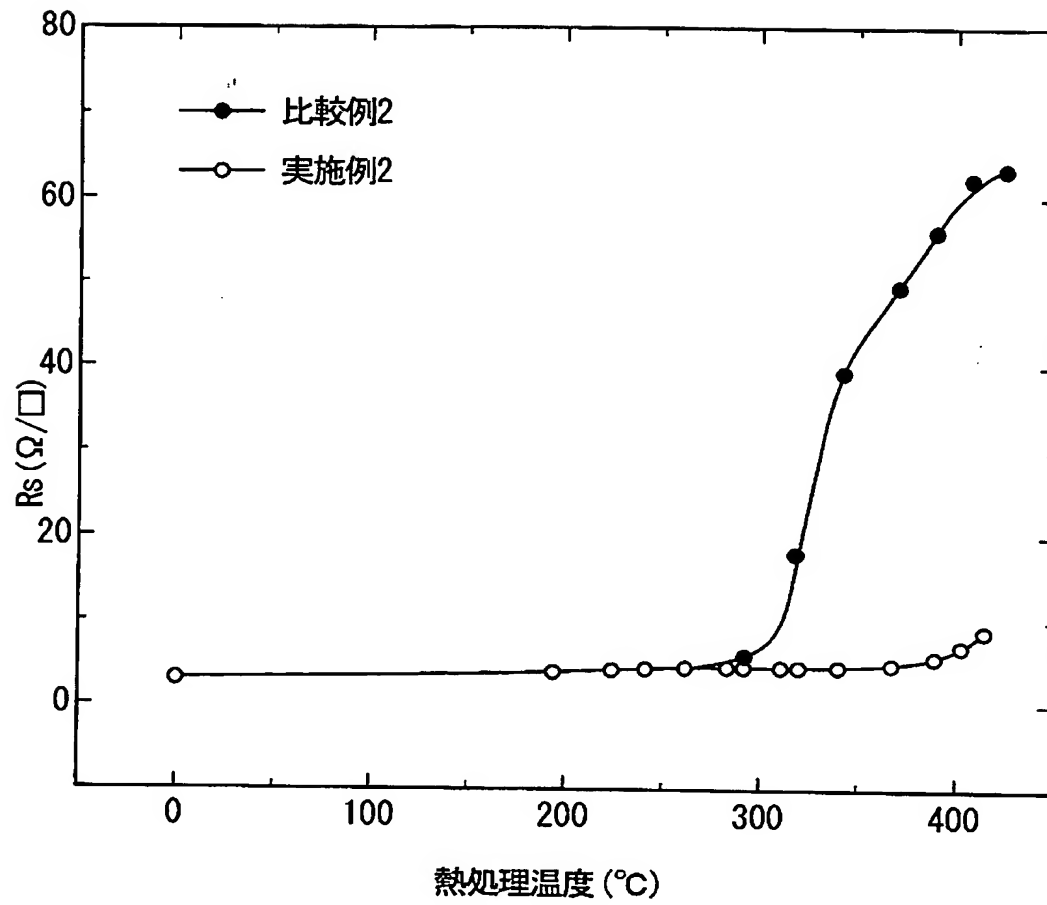


Fig. 20



F i g . 21

	酸化物層13 に対応する 層	熱処理速度と熱処理後のシート抵抗(Ω/\square)			
		なし	300°C	350°C	400°C
比較例2	なし	4.5	6.2	44.3	53.5
実施例2	Al ₂ O ₃ (1nm)	4.3	4.2	4	5.1
実施例3	Mgo (1nm)	4.7	4.2	4.5	5.1

Fig. 22

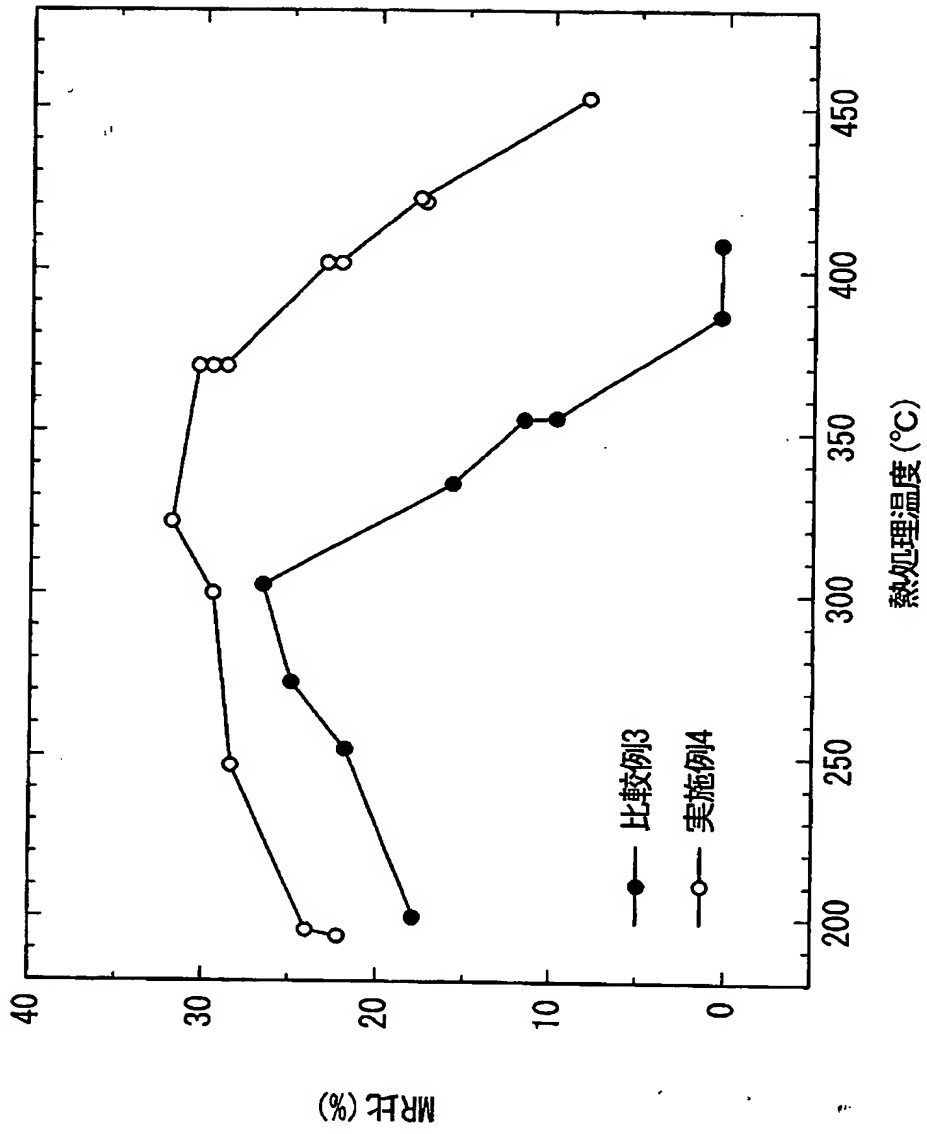


Fig. 23

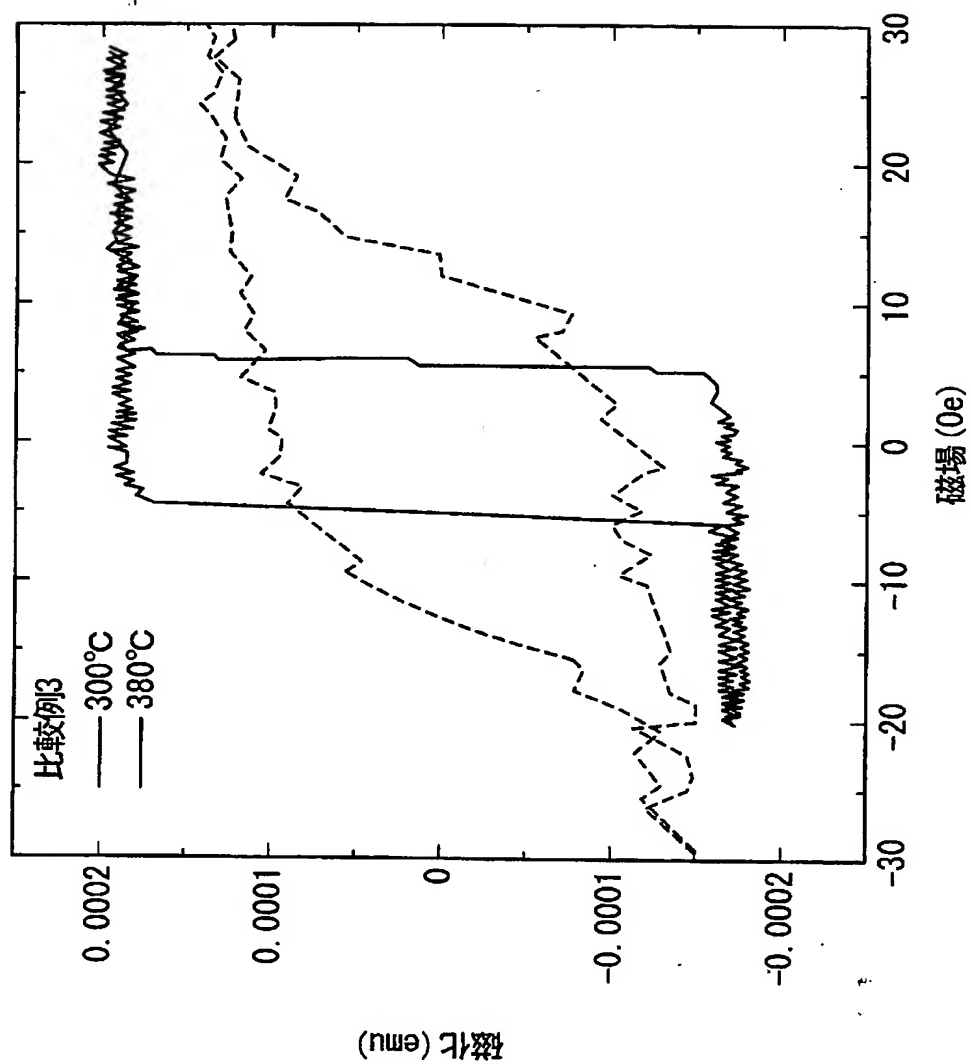


Fig. 24

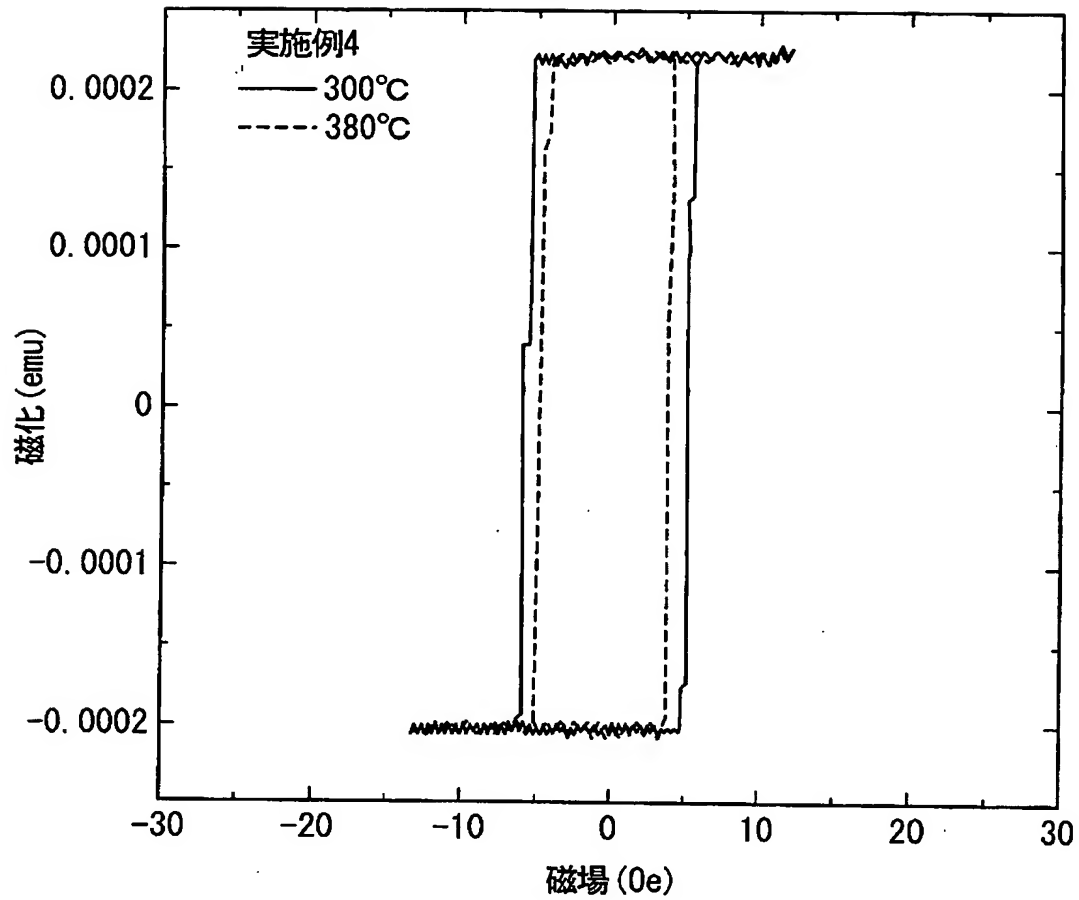
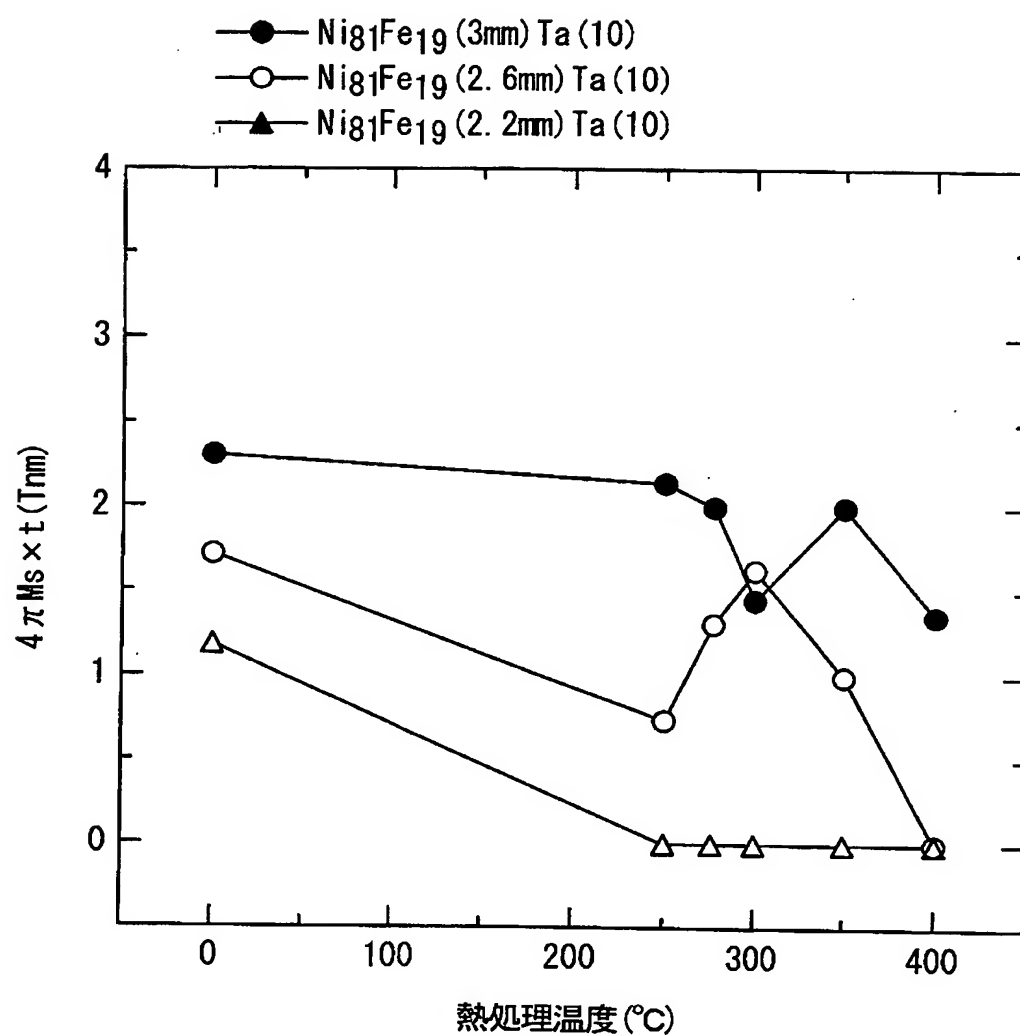


Fig. 25

	酸化物層14 に対応する 層	熱処理速度と熱処理後の自由層飽和磁化(emu/cc)				
		なし	200℃	300℃	380℃	400℃
比較例4	なし	744	736	692	455	35
比較例5	なし	748	744	724	633	610
実施例5	Al ₂ O ₃ (1nm)	783	787	775	771	772
実施例6	Mgo (1nm)	775	771	775	774	773

Fig. 26



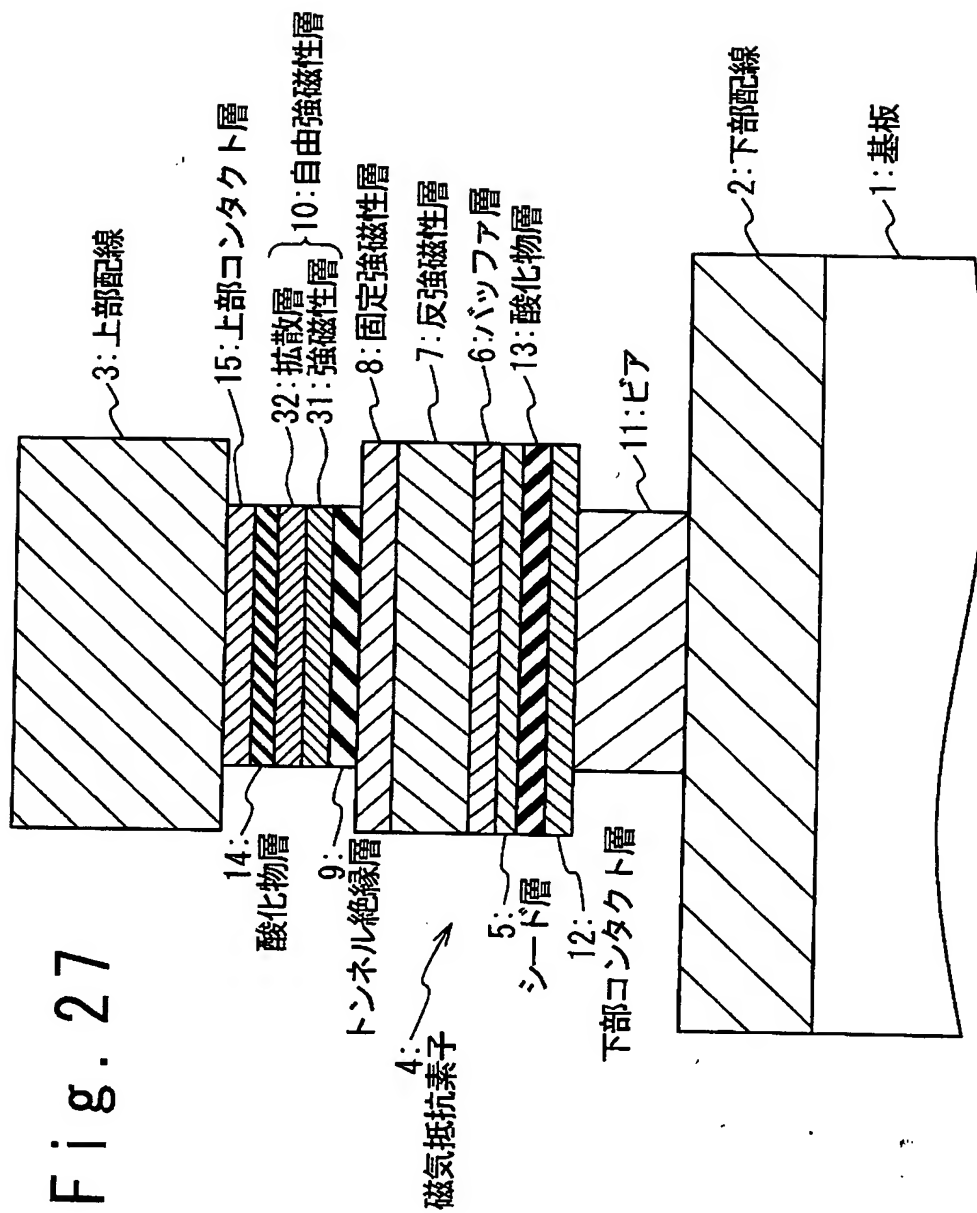


Fig. 28

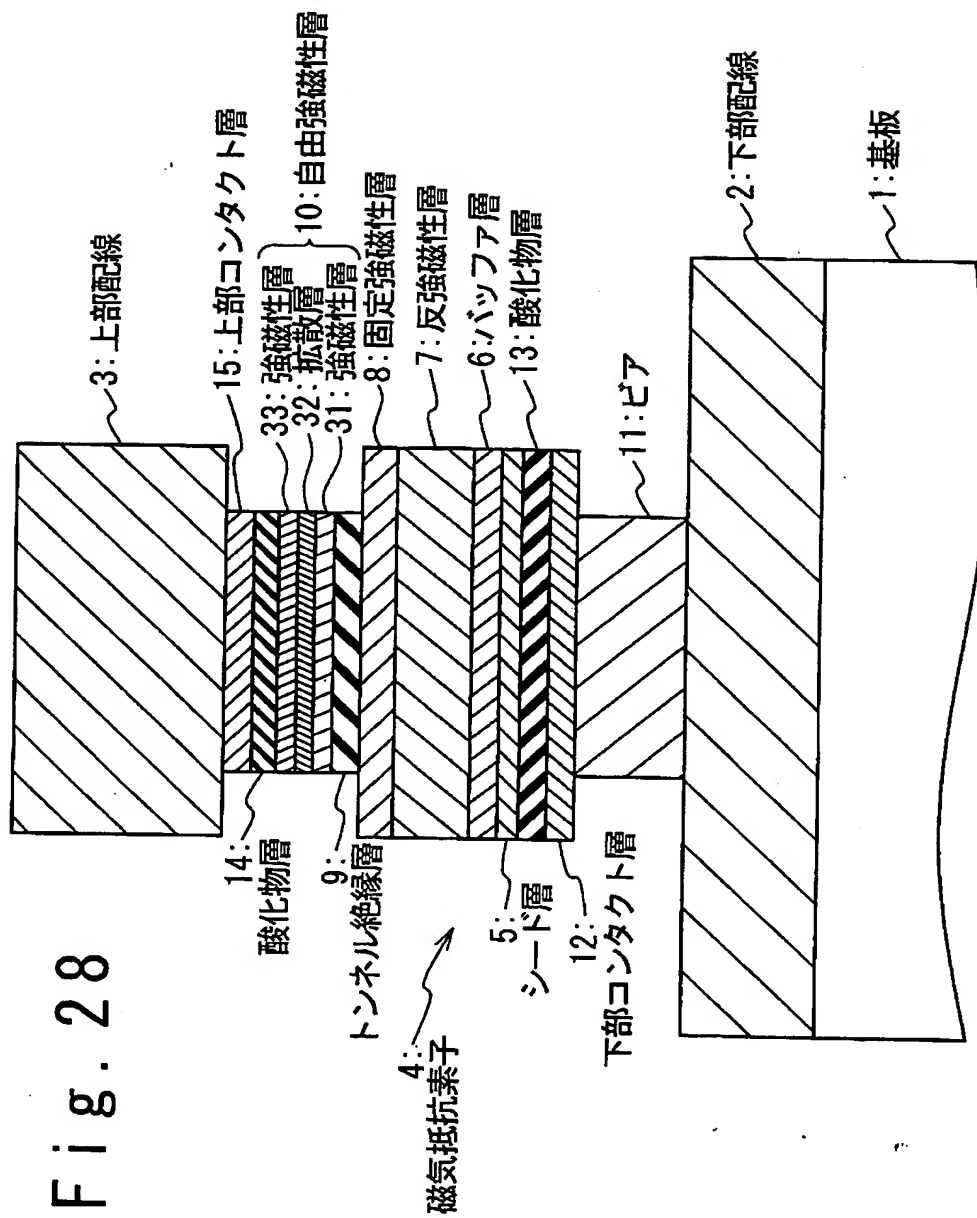
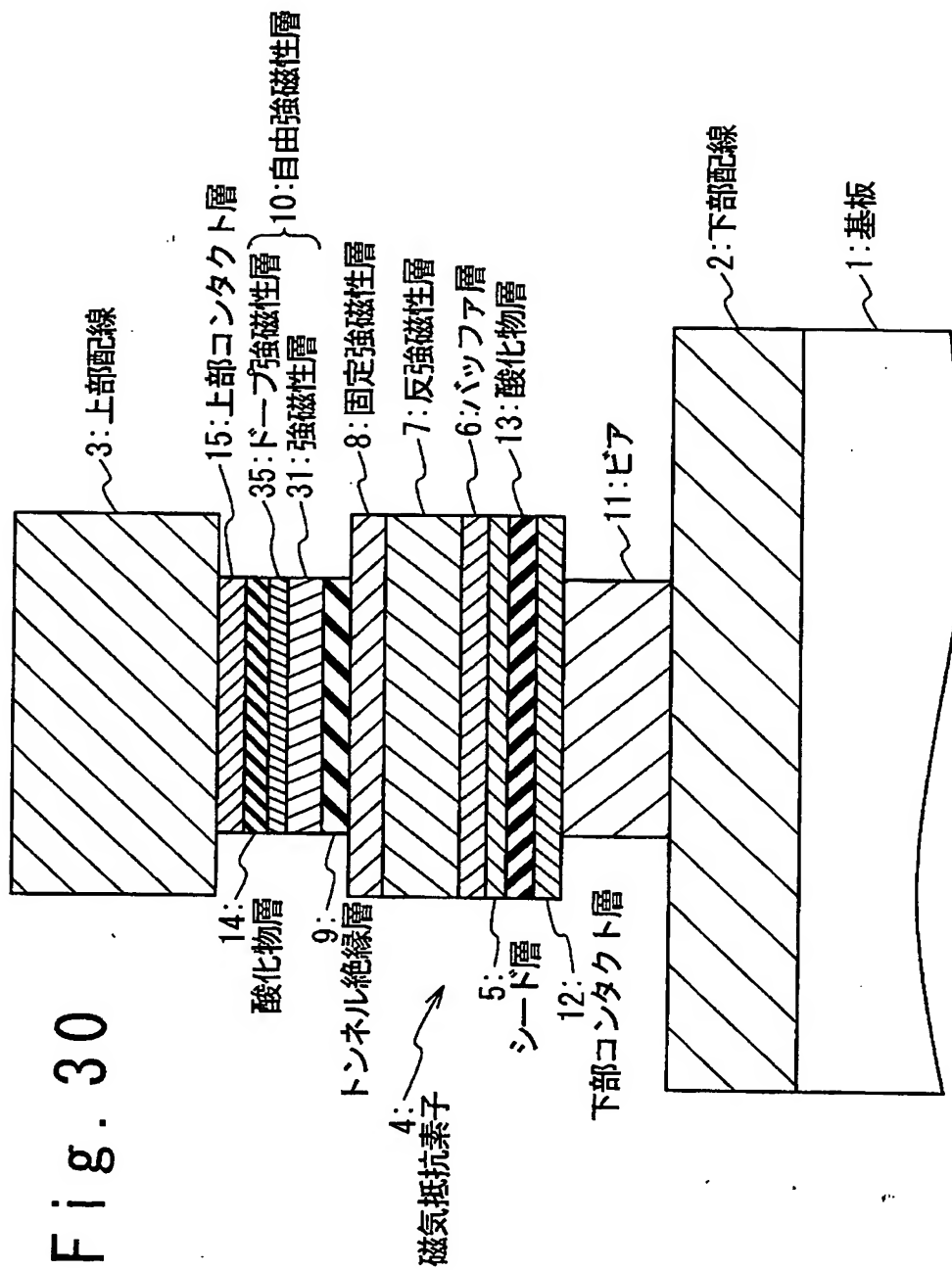


Fig. 30



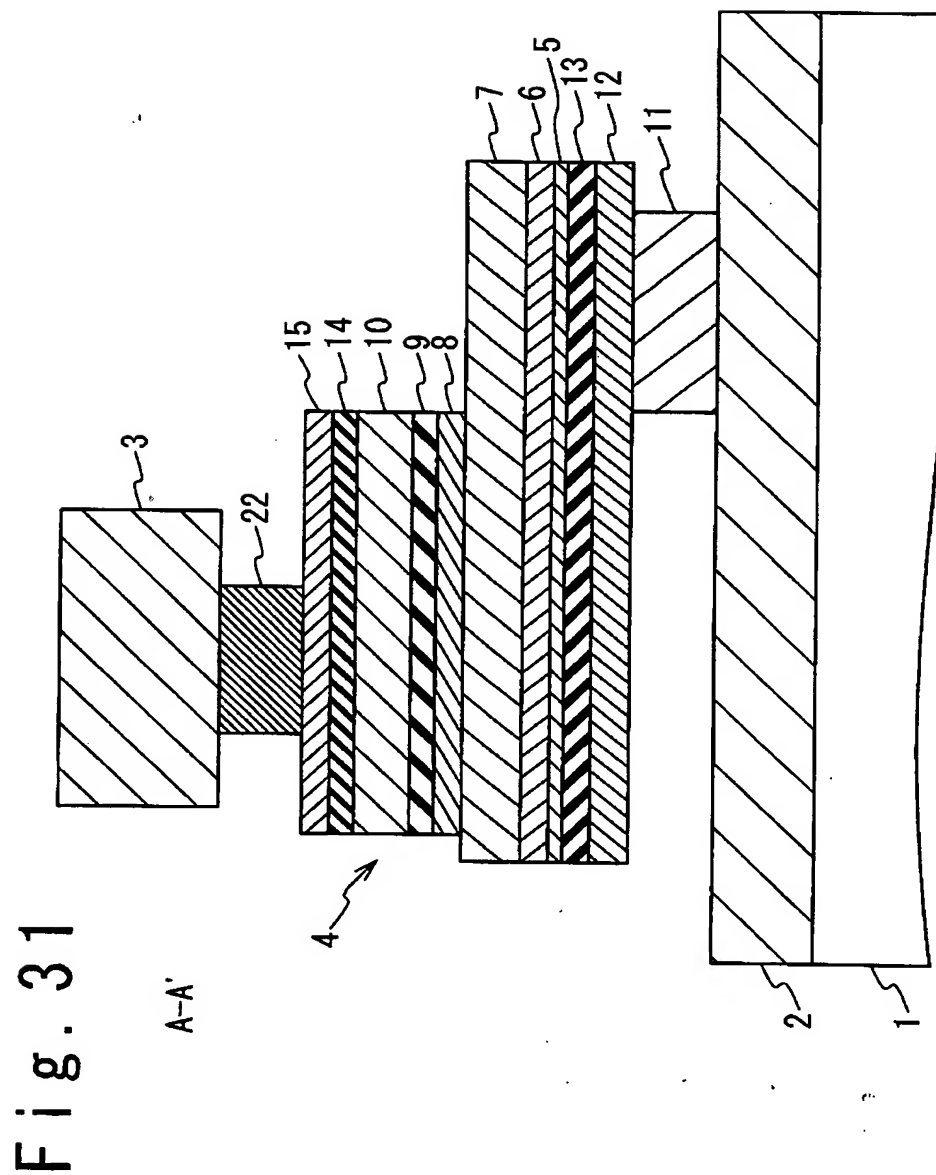


Fig. 32

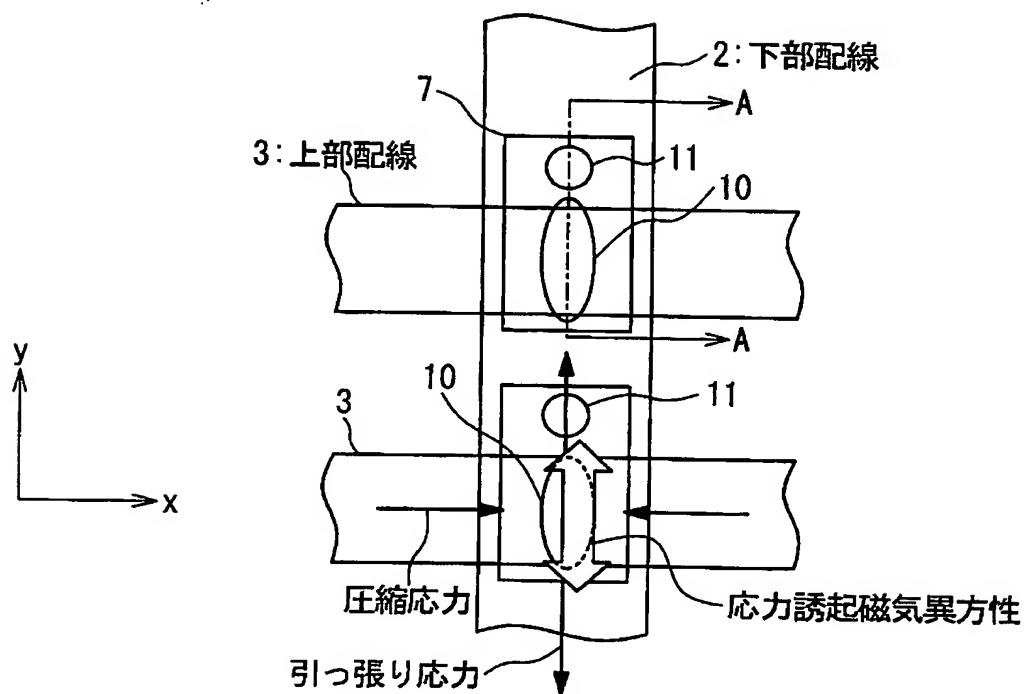
 $\lambda > 0$ 

Fig. 33

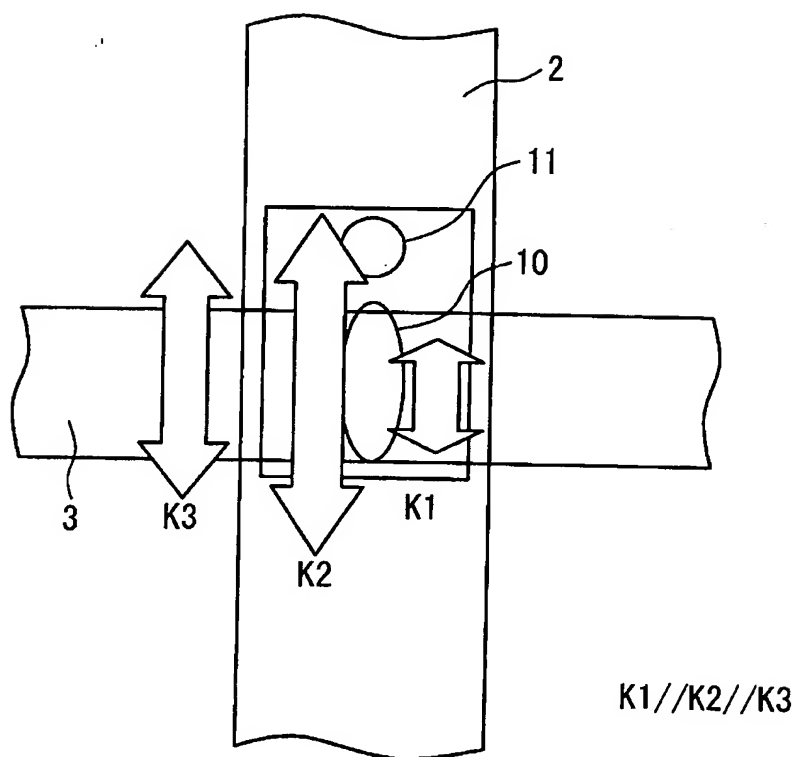


Fig. 34

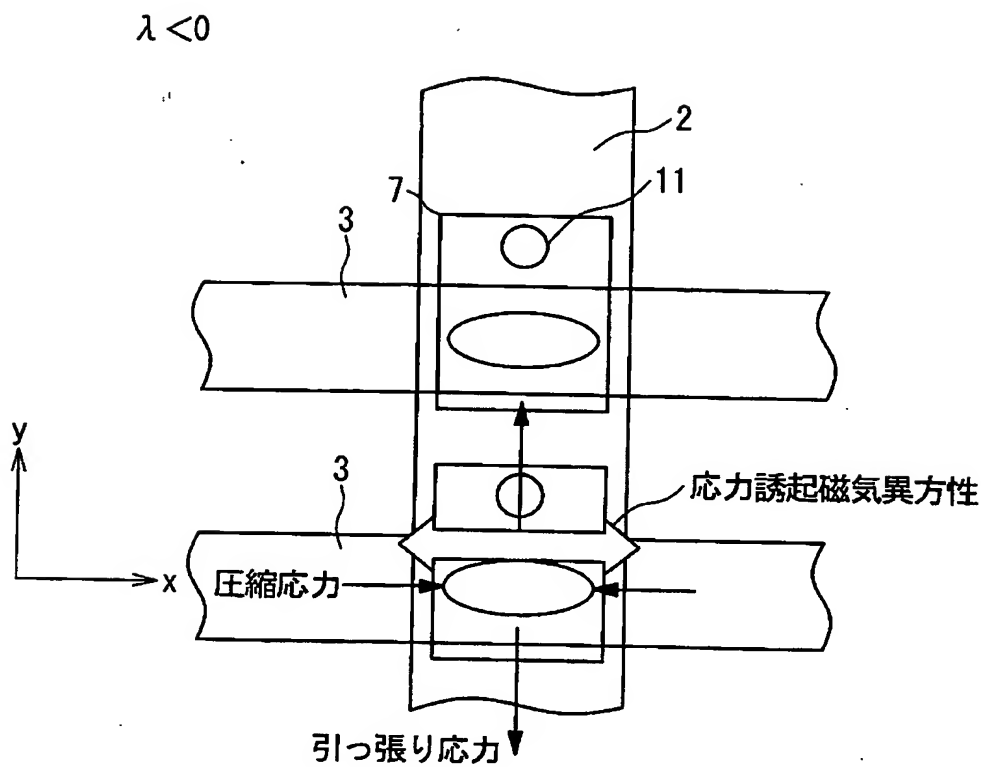


Fig. 35

$\lambda > 0$

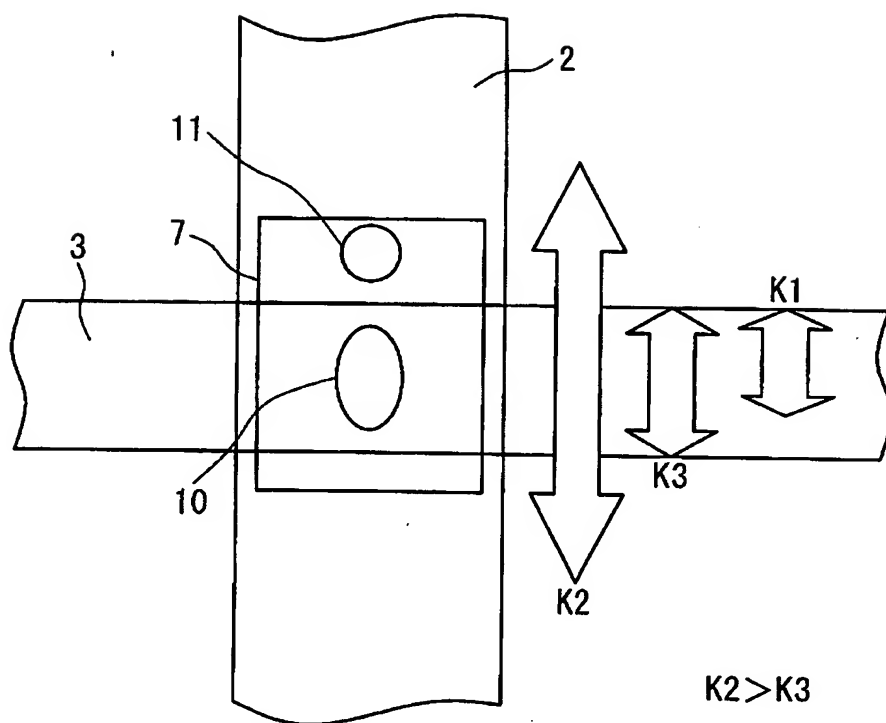


Fig. 36

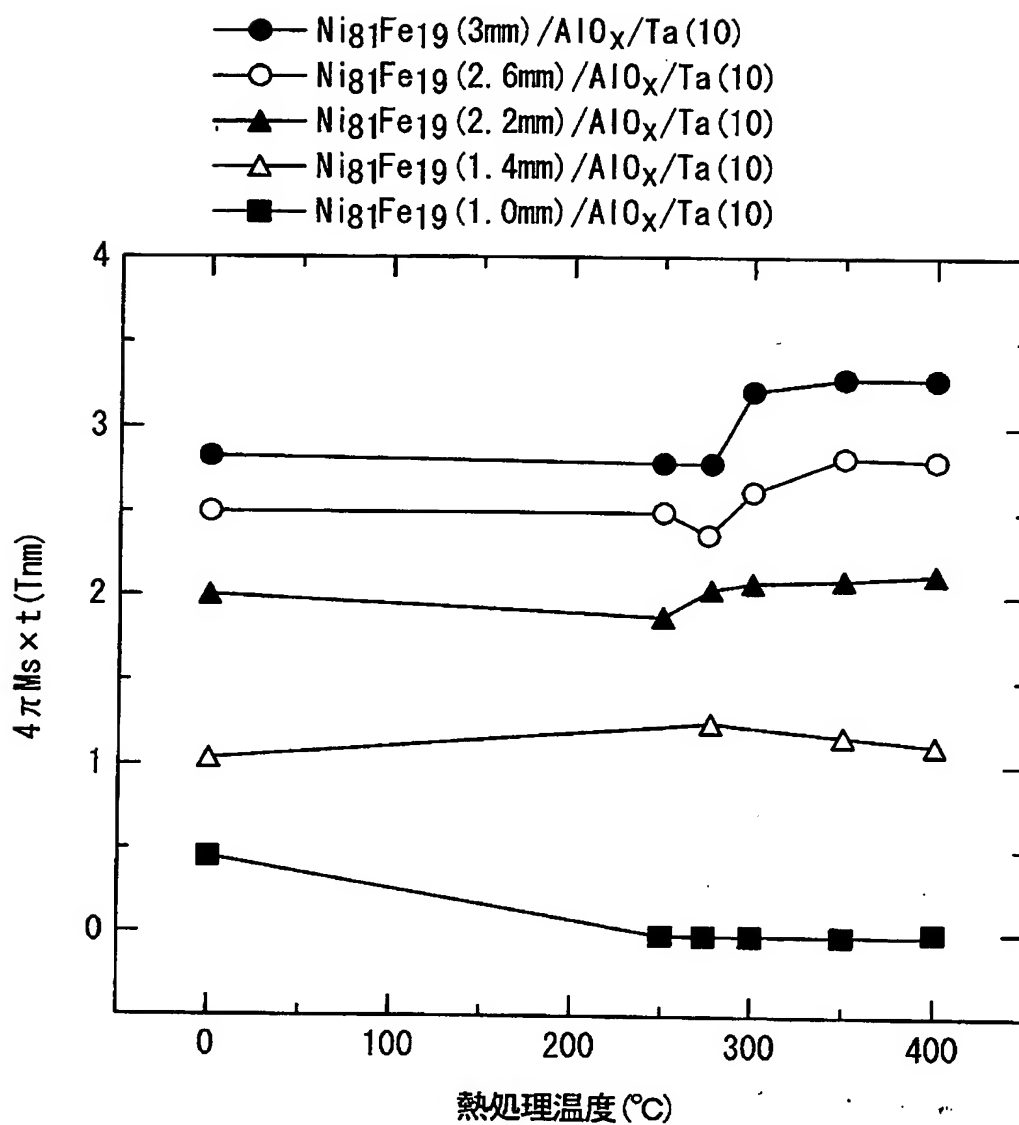


Fig. 37

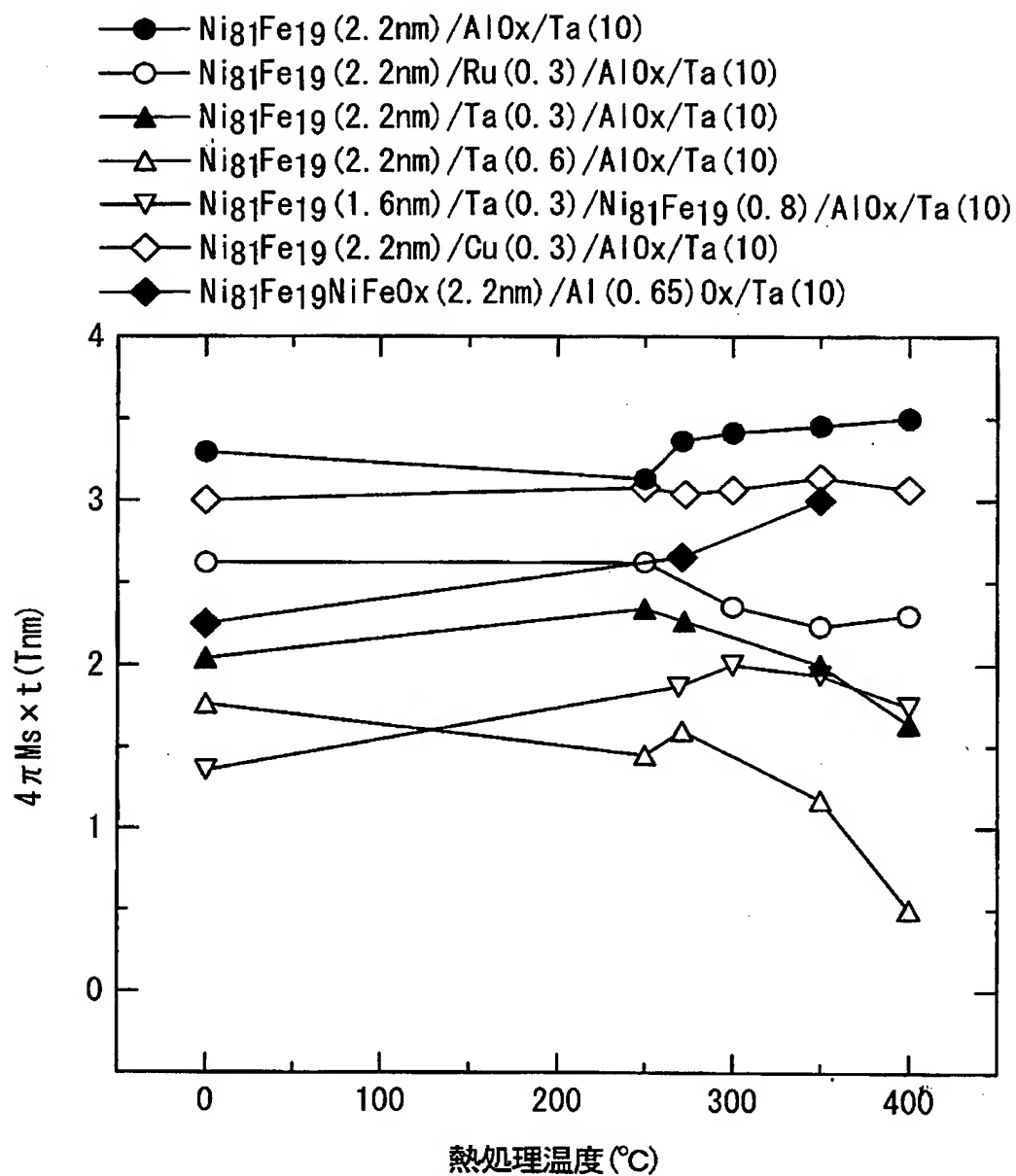


Fig. 38

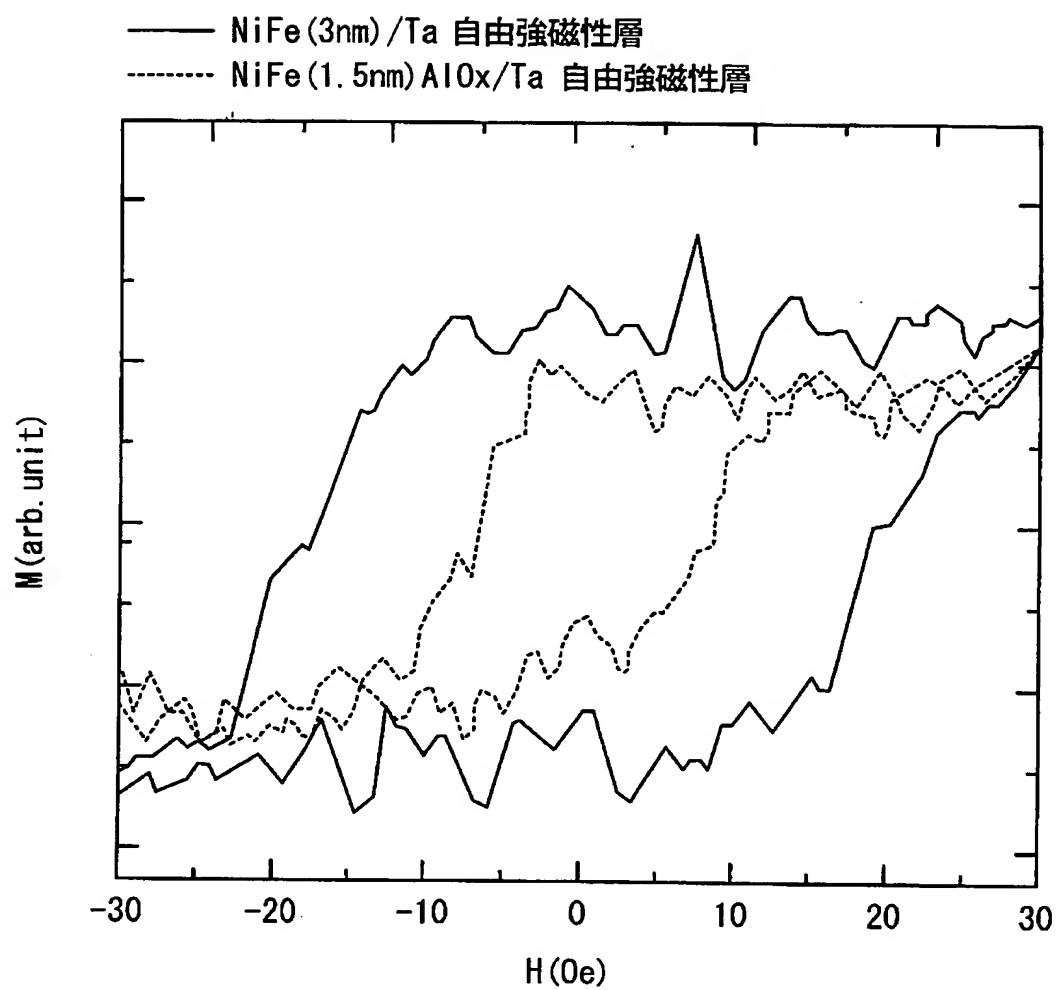


Fig. 39A

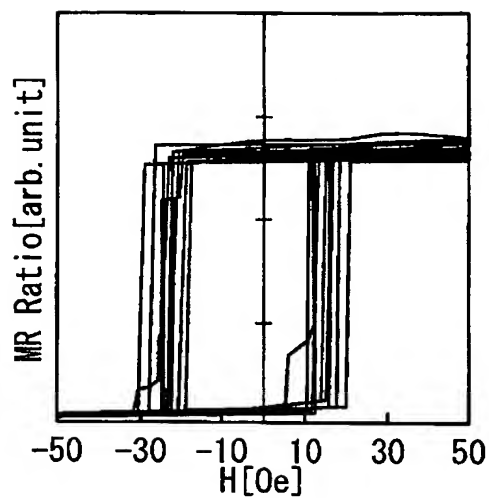


Fig. 39B

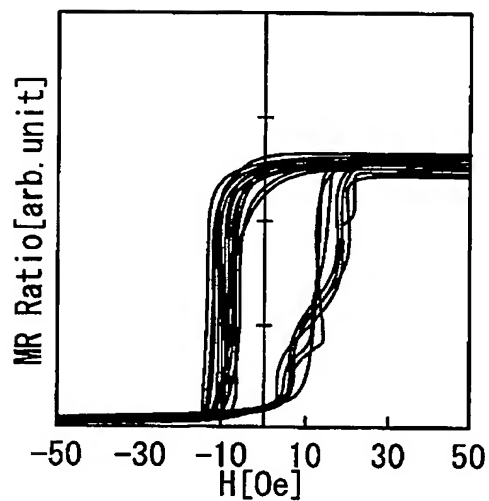


Fig. 39C

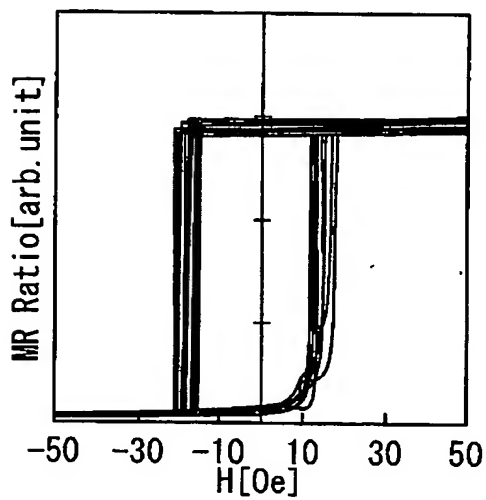


Fig. 40

